



BUREAU VERITAS

Test Report No.: RF180507N048-1



TEST REPORT

Applicant	ATEN Technology, Inc., dba IOGEAR
Address	15365 Barranca Pkwy Irvine, CA 92618 , USA

Manufacturer or Supplier	ATEN Technology, Inc., dba IOGEAR
Address	15365 Barranca Pkwy Irvine, CA 92618 , USA
Product Name	WIFI Module
Brand Name	N/A
Model	G8811A
Additional Model & Model Difference	N/A
Date of tests	May 07, 2018 ~ Mar. 25, 2019

The tests have been carried out according to the requirements of the following standard:

FCC Part 15, Subpart E, Section 15.407

CONCLUSION: The submitted sample was found to COMPLY with the test requirement

Tested by Andy ZHu
Project Engineer/ EMC Department

Approved by Glyn He
Supervisor / EMC Department

Date: Jun. 11, 2019

This report is governed by, and incorporates by reference, CPS Conditions of Service as posted at the date of issuance of this report at <http://www.bureauveritas.com/home/about-us/our-business/cps/about-us/terms-conditions/> and is intended for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. Measurement uncertainty is only provided upon request for accredited tests. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence or if you require measurement uncertainty; provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.

Bureau Veritas Shenzhen Co., Ltd.
Dongguan Branch

No. 34, Chenwulu Section, Guantai Rd., Houjie
Town, Dongguan City,
Guangdong 523942, China

Tel: +86 769 8998 2098
Fax: +86 769 8593 1080
Email: customerservice.dg@cn.bureauveritas.com



TABLE OF CONTENTS

RELEASE CONTROL RECORD4

1. SUMMARY OF TEST RESULTS5

 1.1 MEASUREMENT UNCERTAINTY5

2. GENERAL INFORMATION.....6

 2.1 GENERAL DESCRIPTION OF EUT6

 2.2 DESCRIPTION OF TEST MODES.....8

 2.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL10

 2.3 DUTY CYCLE OF TEST SIGNAL.....12

 2.4 DESCRIPTION OF SUPPORT UNITS13

 2.5 GENERAL DESCRIPTION OF APPLIED STANDARDS13

3. TEST TYPES AND RESULTS14

 3.1 RADIATED EMISSION AND BANDEDGE MEASUREMENT14

 3.1.1 LIMITS OF RADIATED EMISSION AND BANDEDGE MEASUREMENT14

 3.1.2 LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS15

 3.1.3 TEST INSTRUMENTS16

 3.1.4 TEST PROCEDURES.....17

 3.1.5 DEVIATION FROM TEST STANDARD17

 3.1.6 TEST SETUP.....18

 3.1.7 EUT OPERATING CONDITION.....19

 3.1.8 FTEST RESULTS20

 3.2 TRANSMIT POWER MEASUREMENT55

 3.2.1 LIMITS OF TRANSMIT POWER MEASUREMENT.....55

 3.2.2 TEST SETUP.....55

 3.2.3 TEST INSTRUMENTS56

 3.2.4 TEST PROCEDURE56

 3.2.5 DEVIATION FROM TEST STANDARD57

 3.2.6 EUT OPERATING CONDITIONS57

 3.2.7 TEST RESULTS.....58

 3.3 PEAK POWER SPECTRAL DENSITY MEASUREMENT68



3.3.1 LIMITS OF PEAK POWER SPECTRAL DENSITY MEASUREMENT68

3.3.2 TEST SETUP68

3.3.3 TEST INSTRUMENTS68

3.3.4 TEST PROCEDURES68

3.3.5 DEVIATION FROM TEST STANDARD69

3.3.6 EUT OPERATING CONDITIONS69

3.3.7 TEST RESULTS.....70

3.4 FREQUENCY STABILITY77

3.4.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT77

3.4.2 TEST SETUP77

3.4.3 TEST INSTRUMENTS77

3.4.4 TEST PROCEDURE78

3.4.5 DEVIATION FROM TEST STANDARD78

3.4.6 EUT OPERATING CONDITION.....78

3.4.7 TEST RESULTS.....79

4. PHOTOGRAPHS OF THE TEST CONFIGURATION82

**5. APPENDIX A – MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT
BY THE LAB83**



BUREAU
VERITAS

Test Report No.: RF180507N048-1

RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF180507N048-1	Original release.	Jun. 11, 2019



1. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC PART 15, SUBPART E (SECTION 15.407 UNDER NEW RULE)			
STANDARD SECTION	TEST TYPE	RESULT	REMARK
15.407(b)(6)	AC Power Conducted Emissions	N/A	Powered by DC.
15.407(b) (1/2/3/4/6)	Radiated Emissions & Band Edge Measurement	PASS	Meet the requirement of limit.
15.407(a)(1/2/3)	Max Average Transmit Power	PASS	Meet the requirement of limit.
15.407(a)(1/2/3)	Peak Power Spectral Density	PASS	Meet the requirement of limit.
15.407(g)	Frequency Stability	PASS	Meet the requirement of limit.
15.203	Antenna Requirement	PASS	No antenna connector is used

1.1 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

MEASUREMENT	FREQUENCY	UNCERTAINTY
Conducted emissions	9kHz~30MHz	2.70dB
Radiated emissions	9KHz ~ 30MHz	2.90dB
	30MHz ~ 1GMHz	3.83dB
	1GHz ~ 18GHz	4.93dB
	18GHz ~ 40GHz	4.80dB

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k = 2.



2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

PRODUCT NAME	WIFI Module
MODEL NO.	G8811A
FCC ID	QLEG8811A
POWER SUPPLY	DC 3.3V
MODULATION TYPE	64QAM, 16QAM, QPSK, BPSK for OFDM
MODULATION TECHNOLOGY	OFDM
TRANSFER RATE	802.11a: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0Mbps 802.11ac: up to 150.0Mbps
OPERATING FREQUENCY	5180 ~ 5240MHz, 5260 ~ 5320MHz 5500 ~ 5700MHz, 5745 ~ 5825MHz
NUMBER OF CHANNEL	5180 ~ 5240MHz: 4 channels for 802.11a, 802.11n,11ac (20MHz) 2 channels for 802.11n,11ac (40MHz): 5260 ~ 5320MHz: 4 channels for 802.11a, 802.11n (20MHz) 2 channels for 802.11n, 11ac (40MHz) 5500 ~ 5700MHz: 11 channels for 802.11a, 802.11n (20MHz) 5 channels for 802.11n (40MHz) 5745 ~ 5825MHz: 5 channels for 802.11a, 802.11n,11ac (20MHz) 2 channels for 802.11n,11ac (40MHz)
CONDUCTED OUTPUT POWER	15.61dBm for 5150 ~ 5250MHz (Maximum AVG Power) 16.05dBm for 5250 ~ 5350MHz (Maximum AVG Power) 17.12dBm for 5470 ~ 5725MHz (Maximum AVG Power) 17.41dBm for 5725 ~ 5850MHz (Maximum AVG Power)
ANTENNA TYPE	5180 ~ 5240MHz: Dipole antenna with 5dBi gain 5260 ~ 5320MHz: Dipole antenna with 5dBi gain 5500 ~ 5700MHz: Dipole antenna with 5dBi gain 5745 ~ 5825MHz: Dipole antenna with 5dBi gain
I/O PORTS	Refer to user's manual
CABLE SUPPLIED	N/A



NOTES:

1. The EUT have SISO function, provides 1 completed transmitter and 1 receiver.

MODULATION MODE	TX FUNCTION
802.11a	1TX/1RX
802.11n (HT20), 802.11ac (VHT20)	1TX/1RX
802.11n (HT40), 802.11ac (VHT40)	1TX/1RX

* The modulation and bandwidth are similar for 802.11n mode for HT20 / HT40 and 802.11ac mode for VHT20 / VHT40, therefore investigated worst case to representative mode in test report. (Final test mode refer section 3.2.1)

2. For a more detailed features description, please refer to the manufacturer’s specifications or the user's manual.
3. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.
4. Please refer to the EUT photo document (Reference No.: 180507N048) for detailed product photo.
5. The following antenna was provided to the EUT.

Vendor	Antenna Type	Antenna Part number	connector cable	Antenna Connector	Frequency Range (MHz)	Gain (dBi)
Tengxiang	Dipole	AN5800-74BBC 01 RS-B	IPEX-RP-SM A(5cm)	RP-SMA-JACK	5150 - 5250	5
					5250 - 5350	
					5470 - 5725	
					5725 - 5850	



2.2 DESCRIPTION OF TEST MODES

FOR 5150 ~ 5250MHz

4 channels are provided for 802.11a, 802.11ac 20MHz, 802.11n (20MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
36	5180 MHz	40	5200 MHz
44	5220 MHz	48	5240 MHz

2 channels are provided for 802.11ac 40MHz, 802.11n (40MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
38	5190 MHz	46	5230 MHz

FOR 5250 ~ 5350MHz

4 channels are provided for 802.11a, 802.11ac 20MHz, 802.11n (20MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
52	5260 MHz	56	5280 MHz
60	5300 MHz	64	5320 MHz

2 channels are provided for 802.11ac 40MHz, 802.11n (40MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
54	5270 MHz	62	5310 MHz



FOR 5470 ~ 5725MHz

11 channels are provided for 802.11a, 802.11ac 20MHz, 802.11n (20MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
100	5500 MHz	104	5520 MHz
108	5540 MHz	112	5560 MHz
116	5580 MHz	120	5600 MHz
124	5620 MHz	128	5640 MHz
132	5660 MHz	136	5680 MHz
140	5700 MHz	--	--

5 channels are provided for 802.11ac 40MHz, 802.11n (40MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
102	5510 MHz	110	5550 MHz
118	5590 MHz	126	5630 MHz
134	5670 MHz		

FOR 5725 ~ 5850MHz

5 channels are provided for 802.11a, 802.11ac 20MHz, 802.11n (20MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
149	5745MHz	153	5765MHz
157	5785MHz	161	5805MHz
165	5825MHz	--	--

2 channels are provided for 802.11ac 40MHz, 802.11n (40MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
151	5755MHz	159	5795MHz



2.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	RE≥1G	RE<1G	PLC	APCM	
-	√	√	-	√	Powered by DC 3.3V with wifi(5G) link

Where **RE≥1G**: Radiated Emission above 1GHz **RE<1G**: Radiated Emission below 1GHz
PLC: Power Line Conducted Emission **APCM**: Antenna Port Conducted Measurement

NOTE:

1. The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on **Z-plane**.

NOTE: "-" means no effect.

RADIATED EMISSION TEST (ABOVE 1GHz):

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

Following channel(s) was (were) selected for the final test as listed below.

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
-	802.11a	5150-5250	36 to 48	36, 40, 48	OFDM	BPSK	6.0
-	802.11n (20MHz)		36 to 48	36, 40, 48	OFDM	BPSK	6.5
-	802.11n (40MHz)		38 to 46	38, 46	OFDM	BPSK	13.5
-	802.11a	5250-5350	52 to 64	52, 60, 64	OFDM	BPSK	6.0
-	802.11n (20MHz)		52 to 64	52, 60, 64	OFDM	BPSK	6.5
-	802.11n (40MHz)		54 to 62	54, 62	OFDM	BPSK	13.5
-	802.11a	5470-5725	100 to 140	100, 116, 140	OFDM	BPSK	6.0
-	802.11n (20MHz)		100 to 140	100, 116, 140	OFDM	BPSK	6.5
-	802.11n (40MHz)		102 to 134	102, 110, 134	OFDM	BPSK	13.5
-	802.11a	5725-5850	149 to 165	149, 157, 165	OFDM	BPSK	6.0
-	802.11n (20MHz)		149 to 165	149, 157, 165	OFDM	BPSK	6.5
-	802.11n (40MHz)		151 to 159	151, 159	OFDM	BPSK	13.5

RADIATED EMISSION TEST (BELOW 1GHz):

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

Following channel(s) was (were) selected for the final test as listed below.

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
-	802.11a	5150-5250 5470-5725 5725-5850	36 to 48 100 to 140 149 to 165	36	OFDM	BPSK	6.0



ANTENNA PORT CONDUCTED MEASUREMENT:

- This item includes all test value of each mode, but only includes spectrum plot of worst value of each mode.
- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
-	802.11a	5150-5250	36 to 48	36, 40, 48	OFDM	BPSK	6.0
-	802.11n (20MHz)		36 to 48	36, 40, 48	OFDM	BPSK	6.5
-	802.11n (40MHz)		38 to 46	38, 46	OFDM	BPSK	13.5
-	802.11a	5250-5350	52 to 64	52, 60, 64	OFDM	BPSK	6.0
-	802.11n (20MHz)		52 to 64	52, 60, 64	OFDM	BPSK	6.5
-	802.11n (40MHz)		54 to 62	54, 62	OFDM	BPSK	13.5
-	802.11a	5470-5725	100 to 140	100, 116, 140	OFDM	BPSK	6.0
-	802.11n (20MHz)		100 to 140	100, 116, 140	OFDM	BPSK	6.5
-	802.11n (40MHz)		102 to 134	102, 110, 134	OFDM	BPSK	13.5
-	802.11a	5725-5850	149 to 165	149, 157, 165	OFDM	BPSK	6.0
-	802.11n (20MHz)		149 to 165	149, 157, 165	OFDM	BPSK	6.5
-	802.11n (40MHz)		151 to 159	151, 159	OFDM	BPSK	13.5

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE<1G	24deg. C, 55%RH	DC 3.3V	Walker
RE≥1G	24deg. C, 55%RH	DC 3.3V	Walker
PLC	N/A	N/A	N/A
APCM	20deg. C, 55%RH	DC 3.3V	Sen He

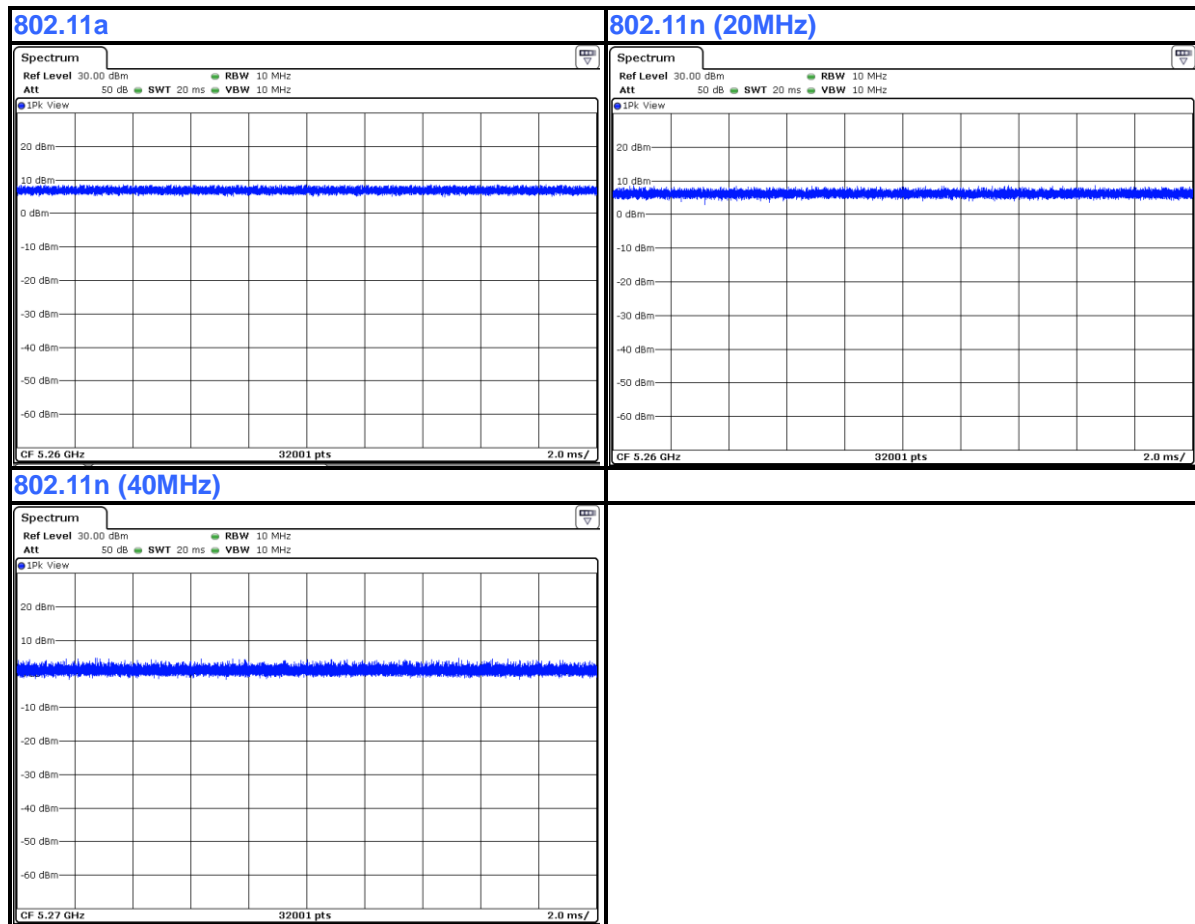


2.3 DUTY CYCLE OF TEST SIGNAL

802.11a: Duty cycle = 100 %

802.11n (20MHz): Duty cycle = 100 %

802.11n (40MHz): Duty cycle = 100 %





2.4 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	Notebook	DELL	5P2PM2X	12400120329	N/A

NO.	DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	USB Line: Unshielded, Detachable 1.5m;

2.5 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a RF Product. According to the specification of the EUT declared by the manufacturer, it must comply with the requirements of the following standards:

FCC Part 15, Subpart E (15.407)

789033 D02 General UNII Test Procedures New Rules v01r03

ANSI C63.10-2013

All test items have been performed and recorded as per the above standards.



3. TEST TYPES AND RESULTS

3.1 RADIATED EMISSION AND BANDEDGE MEASUREMENT

3.1.1 LIMITS OF RADIATED EMISSION AND BANDEDGE MEASUREMENT

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table:

FREQUENCIES (MHz)	FIELD STRENGTH (microvolts/meter)	MEASUREMENT DISTANCE (meters)
0.009 ~ 0.490	2400/F(kHz)	300
0.490 ~ 1.705	24000/F(kHz)	30
1.705 ~ 30.0	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

NOTES:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. For frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 30dB under any condition of modulation.



3.1.2 LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS

APPLICABLE TO	LIMIT	
789033 D02 General UNII Test Procedures New Rules v01r03	FIELD STRENGTH AT 3m	
	PK: 74 (dBµV/m)	AV: 54 (dBµV/m)
APPLICABLE TO	EIRP LIMIT	EQUIVALENT FIELD STRENGTH AT 3m
15.407(b)(1)	PK: -27 (dBm/MHz)	PK: 68.2 (dBµV/m)
15.407(b)(2)		
15.407(b)(3)		
15.407(b)(4)	Note	Note

NOTE: For transmitters operating in the 5.725-5.85 GHz band:

Section 15.407(b)(4) specifies the unwanted emissions limit for the U-NII-3 band. A band emissions mask is specified in Section 15.407(b)(4)(i). An alternative to the band emissions mask is specified in Section 15.407(b)(4)(ii). The alternative limits are based on the highest antenna gain specified in the filing. There are also marketing and importation restrictions for the alternative limit.

15.407(b)(4)(i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

$$E = \frac{1000000\sqrt{30P}}{3} \text{ } \mu\text{V/m, where P is the eirp (Watts).}$$



3.1.3 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESU40	100449	Mar. 12,19	Mar. 11,20
Signal and Spectrum Analyzer	Rohde&Schwarz	FSV7	102331	Aug. 02,18	Aug. 01,19
Active Loop Antenna (9KHz -30MHz)	SCHWARZBECK	FMZB 1519B	1519B-045	May 04,18	May 03,19
Amplifier (9KHz -1GHz)	Burgeon	BPA-530	100210	Apr. 18,18	Apr. 18,19
Bilog Antenna (20MHz -2GHz)	Teseq	CBL 6111D	30643	Aug. 11, 18	Aug. 10, 19
Horn Antenna (1GHz -18GHz)	ETS -Lindgren	3117	00062558	Jul. 21, 18	Jul. 20, 19
Horn Antenna (18GHz -40GHz)	SCHWARZBECK	BBHA 9170	BBHA9170242	May 05,18	May 04,19
3m Semi-anechoic Chamber	ETS-LINDGREN	9m*6m*6m	NSEMC003	Feb. 10,19	Feb. 09,20
Test Software	ADT	ADT_Radiated_V7.6.15.9.2	N/A	N/A	N/A
Broadband Preamplifier (1GHz~18GHz)	SCHWARZBECK	BBV9718	305	Apr. 18,18	Apr. 18,19
Pre-Amplifier (18GHz-40GHz)	EMCI	EMC 184045	980102	Nov. 09,18	Nov. 08,19
Test Software	ADT	ADT_Radiated_V7.6.15.9.2	N/A	N/A	N/A

NOTES:

1. The calibration interval of the above test instruments are 12, 24 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.
2. The horn antenna is used only for the measurement of emission frequency above1GHz if tested.
3. The FCC Site Registration No. is 749762.



3.1.4 TEST PROCEDURES

- a. The EUT was placed on the top of a rotating table 1.5 meters(above 1GHz) and 0.8 meters(below 1GHz) above the ground at a 3 meters semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

NOTES:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is $\geq 1/T$ (Duty cycle < 98%) or 10Hz(Duty cycle > 98%) for Average detection (AV) at frequency above 1GHz.
4. All modes of operation were investigated and the worst-case emissions are reported.

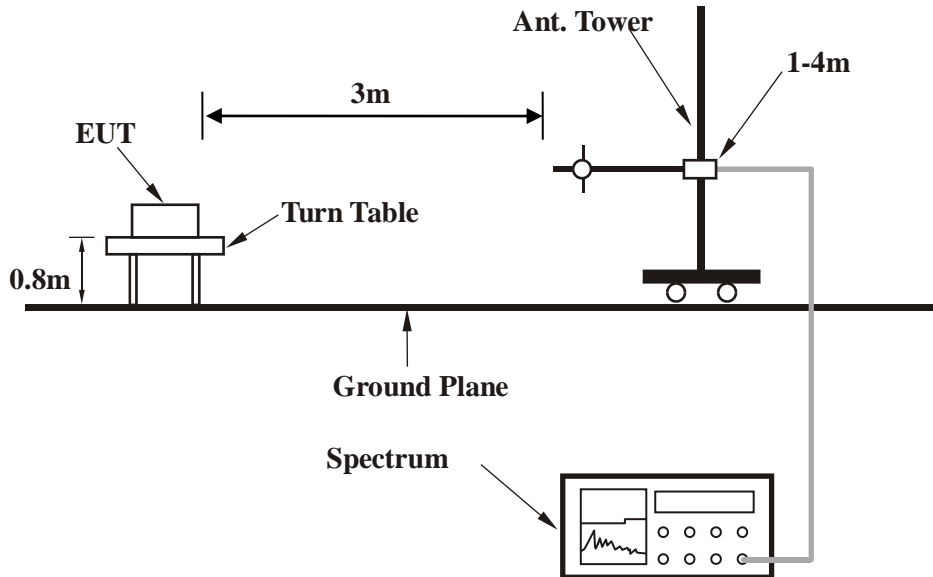
3.1.5 DEVIATION FROM TEST STANDARD

No deviation.



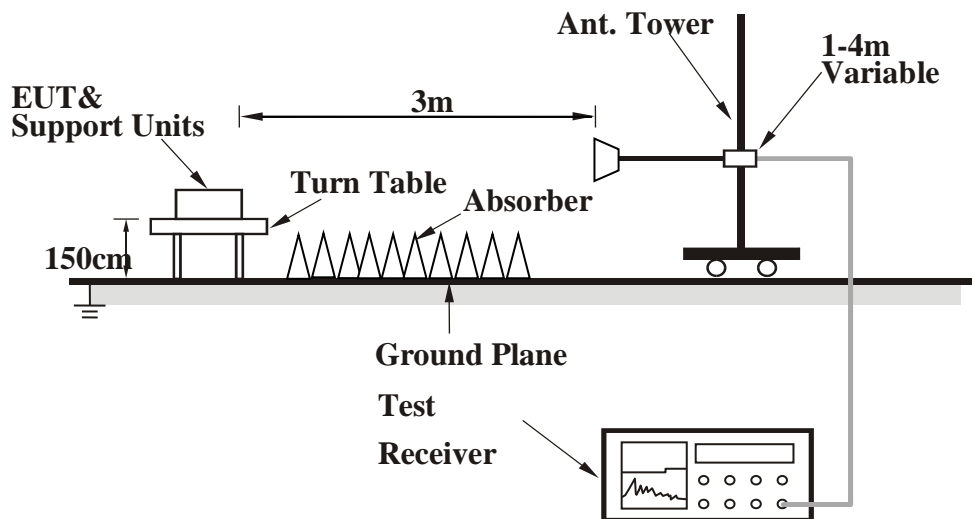
3.1.6 TEST SETUP

Below 1GHz test setup



Note: For the actual test configuration, please refer to the attached file (Test Setup Photo).

Above 1GHz test setup



Note: For the actual test configuration, please refer to the attached file (Test Setup Photo).



3.1.7 EUT OPERATING CONDITION

- a. Plugged the EUT into notebook via external board and placed them on the testing table.
- b. The notebook system ran a test program (provided by manufacturer) to enable EUT under transmission condition continuously at specific channel frequency.
- c. The necessary accessories enable the system in full functions.



3.1.8 FTEST RESULTS

BELOW 1GHz WORST-CASE DATA

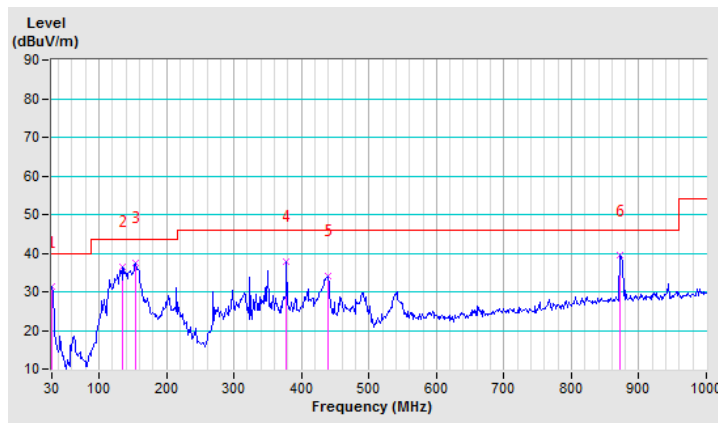
802.11a

CHANNEL	TX Channel 36	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	30.00	31.26 QP	40.00	-8.74	1.00 H	152	41.39	-10.13
2	134.15	36.46 QP	43.50	-7.04	1.00 H	303	52.59	-16.13
3	154.36	37.51 QP	43.50	-5.99	1.00 H	179	53.85	-16.34
4	378.21	37.72 QP	46.00	-8.28	1.00 H	204	47.57	-9.85
5	438.83	34.08 QP	46.00	-11.92	1.00 H	82	42.74	-8.66
6	872.53	39.35 QP	46.00	-6.65	1.00 H	77	40.24	-0.89

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.



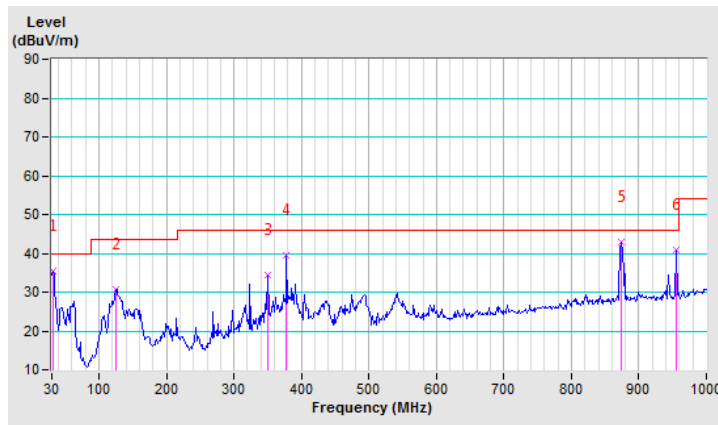


CHANNEL	TX Channel 36	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	31.55	35.55 QP	40.00	-4.45	2.00 V	192	46.60	-11.05
2	124.82	30.83 QP	43.50	-12.67	2.00 V	47	47.19	-16.36
3	350.22	34.38 QP	46.00	-11.62	2.00 V	122	45.04	-10.66
4	378.21	39.42 QP	46.00	-6.58	2.00 V	208	49.27	-9.85
5	874.09	42.81 QP	46.00	-3.19	2.00 V	242	43.67	-0.86
6	954.92	40.88 QP	46.00	-5.12	2.00 V	301	41.15	-0.27

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.





Band 1 (5150-5250MHz):

ABOVE 1GHZ DATA

802.11a

CHANNEL	TX Channel 36	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	57.53 PK	74.00	-16.47	1.36 H	209	51.73	5.80
2	5150.00	38.30 AV	54.00	-15.70	1.36 H	209	32.50	5.80
3	*5180.00	101.51 PK			1.36 H	209	95.60	5.91
4	*5180.00	88.66 AV			1.36 H	209	82.75	5.91
5	#10360.00	54.86 PK	68.20	-13.34	1.00 H	0	40.81	14.05
6	15540.00	62.99 PK	74.00	-11.01	1.00 H	360	42.10	20.89
7	15540.00	47.84 AV	54.00	-6.16	1.00 H	360	26.95	20.89
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	63.99 PK	74.00	-10.01	1.17 V	249	58.19	5.80
2	5150.00	41.60 AV	54.00	-12.40	1.17 V	249	35.80	5.80
3	*5180.00	110.01 PK			1.17 V	249	104.10	5.91
4	*5180.00	96.68 AV			1.17 V	249	90.77	5.91
5	#10360.00	54.27 PK	68.20	-13.93	1.00 V	360	40.22	14.05
6	15540.00	63.27 PK	74.00	-10.73	1.00 V	0	42.38	20.89
7	15540.00	47.89 AV	54.00	-6.11	1.00 V	0	27.00	20.89

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



CHANNEL	TX Channel 40	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	47.43 PK	74.00	-26.57	1.08 H	203	41.63	5.80
2	5150.00	34.82 AV	54.00	-19.18	1.08 H	203	29.02	5.80
3	*5200.00	101.53 PK			1.08 H	203	95.55	5.98
4	*5200.00	88.67 AV			1.08 H	203	82.69	5.98
5	#10400.00	54.83 PK	68.20	-13.37	1.00 H	360	40.70	14.13
6	15600.00	64.26 PK	74.00	-9.74	1.00 H	0	43.23	21.03
7	15600.00	46.87 AV	54.00	-7.13	1.00 H	0	25.84	21.03
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	49.96 PK	74.00	-24.04	1.00 V	191	44.16	5.80
2	5150.00	36.22 AV	54.00	-17.78	1.00 V	191	30.42	5.80
3	*5200.00	110.34 PK			1.00 V	191	104.36	5.98
4	*5200.00	96.93 AV			1.00 V	191	90.95	5.98
5	#10400.00	54.89 PK	68.20	-13.31	1.00 V	360	40.76	14.13
6	15600.00	63.57 PK	74.00	-10.43	1.00 V	0	42.54	21.03
7	15600.00	47.45 AV	54.00	-6.55	1.00 V	0	26.42	21.03

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



CHANNEL	TX Channel 48	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	47.21 PK	74.00	-26.79	1.00 H	246	41.41	5.80
2	5150.00	34.62 AV	54.00	-19.38	1.00 H	246	28.82	5.80
3	*5240.00	102.15 PK			1.00 H	246	96.03	6.12
4	*5240.00	89.75 AV			1.00 H	246	83.63	6.12
5	5350.00	50.28 PK	74.00	-23.72	1.00 H	246	43.75	6.53
6	5350.00	37.64 AV	54.00	-16.36	1.00 H	246	31.11	6.53
7	#10480.00	53.61 PK	68.20	-14.59	1.00 H	360	39.32	14.29
8	15720.00	63.47 PK	74.00	-10.53	1.00 H	0	42.16	21.31
9	15720.00	47.51 AV	54.00	-6.49	1.00 H	0	26.20	21.31

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	47.37 PK	74.00	-26.63	1.13 V	247	41.57	5.80
2	5150.00	35.39 AV	54.00	-18.61	1.13 V	247	29.59	5.80
3	*5240.00	111.19 PK			1.13 V	247	105.07	6.12
4	*5240.00	98.36 AV			1.13 V	247	92.24	6.12
5	5350.00	51.18 PK	74.00	-22.82	1.13 V	247	44.65	6.53
6	5350.00	38.66 AV	54.00	-15.34	1.13 V	247	32.13	6.53
7	#10480.00	54.62 PK	68.20	-13.58	1.00 V	0	40.33	14.29
8	15720.00	63.64 PK	74.00	-10.36	1.00 V	360	42.33	21.31
9	15720.00	47.82 AV	54.00	-6.18	1.00 V	360	26.51	21.31

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



802.11n (20MHz)

CHANNEL	TX Channel 36	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	59.48 PK	74.00	-14.52	1.00 H	167	53.68	5.80
2	5150.00	40.27 AV	54.00	-13.73	1.00 H	167	34.47	5.80
3	*5180.00	101.24 PK			1.00 H	167	95.33	5.91
4	*5180.00	89.14 AV			1.00 H	167	83.23	5.91
5	#10360.00	53.37 PK	68.20	-14.83	1.00 H	360	39.32	14.05
6	15540.00	63.62 PK	74.00	-10.38	1.00 H	0	42.73	20.89
7	15540.00	46.59 AV	54.00	-7.41	1.00 H	0	25.70	20.89
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	63.92 PK	74.00	-10.08	1.24 V	252	58.12	5.80
2	5150.00	44.56 AV	54.00	-9.44	1.24 V	252	38.76	5.80
3	*5180.00	110.45 PK			1.24 V	252	104.54	5.91
4	*5180.00	97.17 AV			1.24 V	252	91.26	5.91
5	#10360.00	54.59 PK	68.20	-13.61	1.00 V	0	40.54	14.05
6	15540.00	64.28 PK	74.00	-9.72	1.00 V	360	43.39	20.89
7	15540.00	47.53 AV	54.00	-6.47	1.00 V	360	26.64	20.89

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



CHANNEL	TX Channel 40	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	50.26 PK	74.00	-23.74	1.00 H	195	44.46	5.80
2	5150.00	35.47 AV	54.00	-18.53	1.00 H	195	29.67	5.80
3	*5200.00	101.26 PK			1.00 H	195	95.28	5.98
4	*5200.00	89.57 AV			1.00 H	195	83.59	5.98
5	#10400.00	53.21 PK	68.20	-14.99	1.00 H	0	39.08	14.13
6	15600.00	63.28 PK	74.00	-10.72	1.00 H	360	42.25	21.03
7	15600.00	46.87 AV	54.00	-7.13	1.00 H	360	25.84	21.03
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	52.08 PK	74.00	-21.92	1.36 V	256	46.28	5.80
2	5150.00	37.16 AV	54.00	-16.84	1.36 V	256	31.36	5.80
3	*5200.00	111.06 PK			1.36 V	256	105.08	5.98
4	*5200.00	97.41 AV			1.36 V	256	91.43	5.98
5	#10400.00	54.83 PK	68.20	-13.37	1.00 V	360	40.70	14.13
6	15600.00	63.67 PK	74.00	-10.33	1.00 V	0	42.64	21.03
7	15600.00	47.59 AV	54.00	-6.41	1.00 V	0	26.56	21.03

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



CHANNEL	TX Channel 48	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	47.56 PK	74.00	-26.44	1.00 H	185	41.76	5.80
2	5150.00	34.29 AV	54.00	-19.71	1.00 H	185	28.49	5.80
3	*5240.00	101.32 PK			1.00 H	185	95.20	6.12
4	*5240.00	89.47 AV			1.00 H	185	83.35	6.12
5	5350.00	51.42 PK	74.00	-22.58	1.00 H	185	44.89	6.53
6	5350.00	37.87 AV	54.00	-16.13	1.00 H	185	31.34	6.53
7	#10480.00	53.96 PK	68.20	-14.24	1.00 H	360	39.67	14.29
8	15720.00	63.68 PK	74.00	-10.32	1.00 H	0	42.37	21.31
9	15720.00	46.58 AV	54.00	-7.42	1.00 H	0	25.27	21.31

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	48.94 PK	74.00	-25.06	1.29 V	254	43.14	5.80
2	5150.00	35.52 AV	54.00	-18.48	1.29 V	254	29.72	5.80
3	*5240.00	111.91 PK			1.29 V	254	105.79	6.12
4	*5240.00	98.86 AV			1.29 V	254	92.74	6.12
5	5350.00	52.63 PK	74.00	-21.37	1.29 V	254	46.10	6.53
6	5350.00	38.87 AV	54.00	-15.13	1.29 V	254	32.34	6.53
7	#10480.00	54.26 PK	68.20	-13.94	1.00 V	0	39.97	14.29
8	15720.00	64.25 PK	74.00	-9.75	1.00 V	360	42.94	21.31
9	15720.00	47.72 AV	54.00	-6.28	1.00 V	360	26.41	21.31

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



802.11n (40MHz)

CHANNEL	TX Channel 38	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	65.23 PK	74.00	-8.77	1.00 H	189	59.43	5.80
2	5150.00	46.34 AV	54.00	-7.66	1.00 H	189	40.54	5.80
3	*5190.00	95.37 PK			1.00 H	189	89.42	5.95
4	*5190.00	81.67 AV			1.00 H	189	75.72	5.95
5	#10380.00	53.61 PK	68.20	-14.59	1.00 H	360	39.52	14.09
6	15570.00	63.67 PK	74.00	-10.33	1.00 H	0	42.71	20.96
7	15570.00	46.52 AV	54.00	-7.48	1.00 H	0	25.56	20.96

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	70.27 PK	74.00	-3.73	1.34 V	255	64.47	5.80
2	5150.00	50.70 AV	54.00	-3.30	1.34 V	255	44.90	5.80
3	*5190.00	106.59 PK			1.34 V	255	100.64	5.95
4	*5190.00	90.27 AV			1.34 V	255	84.32	5.95
5	#10380.00	54.59 PK	68.20	-13.61	1.00 V	0	40.50	14.09
6	15570.00	64.32 PK	74.00	-9.68	1.00 V	360	43.36	20.96
7	15570.00	47.52 AV	54.00	-6.48	1.00 V	360	26.56	20.96

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



CHANNEL	TX Channel 46	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	52.16 PK	74.00	-21.84	1.00 H	286	46.36	5.80
2	5150.00	35.46 AV	54.00	-18.54	1.00 H	286	29.66	5.80
3	*5230.00	98.64 PK			1.00 H	286	92.55	6.09
4	*5230.00	84.76 AV			1.00 H	286	78.67	6.09
5	#10460.00	53.67 PK	68.20	-14.53	1.00 H	360	39.42	14.25
6	15690.00	63.78 PK	74.00	-10.22	1.00 H	0	42.54	21.24
7	15690.00	46.84 AV	54.00	-7.16	1.00 H	0	25.60	21.24

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	56.41 PK	74.00	-17.59	1.26 V	255	50.61	5.80
2	5150.00	38.42 AV	54.00	-15.58	1.26 V	255	32.62	5.80
3	*5230.00	108.96 PK			1.26 V	255	102.87	6.09
4	*5230.00	93.10 AV			1.26 V	255	87.01	6.09
5	#10460.00	54.68 PK	68.20	-13.52	1.00 V	0	40.43	14.25
6	15690.00	64.37 PK	74.00	-9.63	1.00 V	360	43.13	21.24
7	15690.00	47.84 AV	54.00	-6.16	1.00 V	360	26.60	21.24

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



Band 2 (5250-5350MHz):

ABOVE 1GHZ DATA

802.11a

CHANNEL	TX Channel 52	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	47.85 PK	74.00	-26.15	1.00 H	198	42.05	5.80
2	5150.00	34.29 AV	54.00	-19.71	1.00 H	198	28.49	5.80
3	*5260.00	101.37 PK			1.00 H	198	95.16	6.21
4	*5260.00	89.76 AV			1.00 H	198	83.55	6.21
5	5350.00	50.40 PK	74.00	-23.60	1.00 H	198	43.87	6.53
6	5350.00	37.48 AV	54.00	-16.52	1.00 H	198	30.95	6.53
7	#10520.00	53.62 PK	68.20	-14.58	1.00 H	0	39.26	14.36
8	15780.00	63.52 PK	74.00	-10.48	1.00 H	360	42.07	21.45
9	15780.00	46.19 AV	54.00	-7.81	1.00 H	360	24.74	21.45
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	48.10 PK	74.00	-25.90	1.02 V	256	42.30	5.80
2	5150.00	35.53 AV	54.00	-18.47	1.02 V	256	29.73	5.80
3	*5260.00	110.42 PK			1.02 V	256	104.21	6.21
4	*5260.00	97.29 AV			1.02 V	256	91.08	6.21
5	5350.00	51.64 PK	74.00	-22.36	1.02 V	256	45.11	6.53
6	5350.00	38.58 AV	54.00	-15.42	1.02 V	256	32.05	6.53
7	#10520.00	54.82 PK	68.20	-13.38	1.00 V	360	40.46	14.36
8	15780.00	64.19 PK	74.00	-9.81	1.00 V	0	42.74	21.45
9	15780.00	47.43 AV	54.00	-6.57	1.00 V	0	25.98	21.45

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.



CHANNEL	TX Channel 60	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	102.25 PK			1.00 H	187	95.90	6.35
2	*5300.00	90.43 AV			1.00 H	187	84.08	6.35
3	5350.00	50.32 PK	74.00	-23.68	1.00 H	187	43.79	6.53
4	5350.00	36.29 AV	54.00	-17.71	1.00 H	187	29.76	6.53
5	10600.00	53.67 PK	74.00	-20.33	1.00 H	360	39.15	14.52
6	10600.00	43.29 AV	54.00	-10.71	1.00 H	360	28.77	14.52
7	15900.00	63.95 PK	74.00	-10.05	1.00 H	0	42.22	21.73
8	15900.00	46.27 AV	54.00	-7.73	1.00 H	0	24.54	21.73

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	111.60 PK			1.12 V	259	105.25	6.35
2	*5300.00	98.27 AV			1.12 V	259	91.92	6.35
3	5350.00	53.35 PK	74.00	-20.65	1.12 V	259	46.82	6.53
4	5350.00	39.42 AV	54.00	-14.58	1.12 V	259	32.89	6.53
5	10600.00	54.29 PK	74.00	-19.71	1.00 V	0	39.77	14.52
6	10600.00	43.61 AV	54.00	-10.39	1.00 V	0	29.09	14.52
7	15900.00	64.23 PK	74.00	-9.77	1.00 V	360	42.50	21.73
8	15900.00	47.51 AV	54.00	-6.49	1.00 V	360	25.78	21.73

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.



CHANNEL	TX Channel 64	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	101.24 PK			1.00 H	167	94.82	6.42
2	*5320.00	89.76 AV			1.00 H	167	83.34	6.42
3	5350.00	61.47 PK	74.00	-12.53	1.00 H	167	54.94	6.53
4	5350.00	40.31 AV	54.00	-13.69	1.00 H	167	33.78	6.53
5	10640.00	54.29 PK	74.00	-19.71	1.00 H	360	39.69	14.60
6	10640.00	41.32 AV	54.00	-12.68	1.00 H	360	26.72	14.60
7	15960.00	63.47 PK	74.00	-10.53	1.00 H	360	41.60	21.87
8	15960.00	46.51 AV	54.00	-7.49	1.00 H	360	24.64	21.87

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	111.21 PK			1.00 V	255	104.79	6.42
2	*5320.00	98.37 AV			1.00 V	255	91.95	6.42
3	5350.00	65.91 PK	74.00	-8.09	1.00 V	255	59.38	6.53
4	5350.00	43.56 AV	54.00	-10.44	1.00 V	255	37.03	6.53
5	10640.00	54.36 PK	74.00	-19.64	1.00 V	0	39.76	14.60
6	10640.00	43.61 AV	54.00	-10.39	1.00 V	0	29.01	14.60
7	15960.00	64.52 PK	74.00	-9.48	1.00 V	360	42.65	21.87
8	15960.00	47.34 AV	54.00	-6.66	1.00 V	360	25.47	21.87

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.



802.11n (20MHz)

CHANNEL	TX Channel 52	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	47.68 PK	74.00	-26.32	1.02 H	202	41.88	5.80
2	5150.00	35.26 AV	54.00	-18.74	1.02 H	202	29.46	5.80
3	*5260.00	102.66 PK			1.02 H	202	96.45	6.21
4	*5260.00	89.37 AV			1.02 H	202	83.16	6.21
5	5350.00	49.68 PK	74.00	-24.32	1.02 H	202	43.15	6.53
6	5350.00	37.41 AV	54.00	-16.59	1.02 H	202	30.88	6.53
7	#10520.00	54.16 PK	68.20	-14.04	1.00 H	360	39.80	14.36
8	15780.00	63.18 PK	74.00	-10.82	1.00 H	0	41.73	21.45
9	15780.00	46.37 AV	54.00	-7.63	1.00 H	0	24.92	21.45

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	52.49 PK	74.00	-21.51	1.00 V	253	46.69	5.80
2	5150.00	38.69 AV	54.00	-15.31	1.00 V	253	32.89	5.80
3	*5260.00	111.08 PK			1.00 V	253	104.87	6.21
4	*5260.00	92.34 AV			1.00 V	253	86.13	6.21
5	5350.00	53.68 PK	74.00	-20.32	1.00 V	253	47.15	6.53
6	5350.00	38.64 AV	54.00	-15.36	1.00 V	253	32.11	6.53
7	#10520.00	53.62 PK	68.20	-14.58	1.00 V	0	39.26	14.36
8	15780.00	64.38 PK	74.00	-9.62	1.00 V	360	42.93	21.45
9	15780.00	45.21 AV	54.00	-8.79	1.00 V	360	23.76	21.45

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.



CHANNEL	TX Channel 60	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	101.35 PK			1.00 H	201	95.00	6.35
2	*5300.00	90.67 AV			1.00 H	201	84.32	6.35
3	5350.00	57.46 PK	74.00	-16.54	1.00 H	201	50.93	6.53
4	5350.00	38.97 AV	54.00	-15.03	1.00 H	201	32.44	6.53
5	10600.00	51.47 PK	74.00	-22.53	1.00 H	0	36.95	14.52
6	10600.00	40.15 AV	54.00	-13.85	1.00 H	0	25.63	14.52
7	15900.00	63.48 PK	74.00	-10.52	1.00 H	360	41.75	21.73
8	15900.00	46.85 AV	54.00	-7.15	1.00 H	360	25.12	21.73

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	113.34 PK			1.18 V	257	106.99	6.35
2	*5300.00	100.15 AV			1.18 V	257	93.80	6.35
3	5350.00	60.26 PK	74.00	-13.74	1.18 V	257	53.73	6.53
4	5350.00	41.37 AV	54.00	-12.63	1.18 V	257	34.84	6.53
5	10600.00	54.36 PK	74.00	-19.64	1.00 V	360	39.84	14.52
6	10600.00	42.87 AV	54.00	-11.13	1.00 V	360	28.35	14.52
7	15900.00	64.28 PK	74.00	-9.72	1.00 V	0	42.55	21.73
8	15900.00	47.84 AV	54.00	-6.16	1.00 V	0	26.11	21.73

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.



CHANNEL	TX Channel 64	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	101.70 PK			1.00 H	199	95.28	6.42
2	*5320.00	90.34 AV			1.00 H	199	83.92	6.42
3	5350.00	65.47 PK	74.00	-8.53	1.00 H	199	58.94	6.53
4	5350.00	47.38 AV	54.00	-6.62	1.00 H	199	40.85	6.53
5	10640.00	53.69 PK	74.00	-20.31	1.00 H	360	39.09	14.60
6	10640.00	43.38 AV	54.00	-10.62	1.00 H	360	28.78	14.60
7	15960.00	63.87 PK	74.00	-10.13	1.00 H	0	42.00	21.87
8	15960.00	46.69 AV	54.00	-7.31	1.00 H	0	24.82	21.87

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	113.11 PK			1.02 V	258	106.69	6.42
2	*5320.00	99.98 AV			1.02 V	258	93.56	6.42
3	5350.00	68.02 PK	74.00	-5.98	1.02 V	258	61.49	6.53
4	5350.00	50.27 AV	54.00	-3.73	1.02 V	258	43.74	6.53
5	10640.00	54.28 PK	74.00	-19.72	1.00 V	0	39.68	14.60
6	10640.00	43.74 AV	54.00	-10.26	1.00 V	0	29.14	14.60
7	15960.00	64.53 PK	74.00	-9.47	1.00 V	360	42.66	21.87
8	15960.00	47.26 AV	54.00	-6.74	1.00 V	360	25.39	21.87

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.



802.11n (40MHz)

CHANNEL	TX Channel 54	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5270.00	99.67 PK			1.00 H	211	93.43	6.24
2	*5270.00	88.46 AV			1.00 H	211	82.22	6.24
3	5350.00	56.34 PK	74.00	-17.66	1.00 H	211	49.81	6.53
4	5350.00	40.12 AV	54.00	-13.88	1.00 H	211	33.59	6.53
5	#10540.00	54.63 PK	68.20	-13.57	1.00 H	360	40.22	14.41
6	15810.00	63.76 PK	74.00	-10.24	1.00 H	0	42.24	21.52
7	15810.00	46.92 AV	54.00	-7.08	1.00 H	0	25.40	21.52

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5270.00	109.88 PK			1.22 V	70	103.64	6.24
2	*5270.00	93.84 AV			1.22 V	70	87.60	6.24
3	5350.00	58.54 PK	74.00	-15.46	1.22 V	70	52.01	6.53
4	5350.00	42.73 AV	54.00	-11.27	1.22 V	70	36.20	6.53
5	#10540.00	55.26 PK	68.20	-12.94	1.00 V	0	40.85	14.41
6	15810.00	64.28 PK	74.00	-9.72	1.00 V	360	42.76	21.52
7	15810.00	47.88 AV	54.00	-6.12	1.00 V	360	26.36	21.52

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.



CHANNEL	TX Channel 62	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	98.67 PK			1.00 H	202	92.29	6.38
2	*5310.00	87.64 AV			1.00 H	202	81.26	6.38
3	5350.00	67.43 PK	74.00	-6.57	1.00 H	202	60.90	6.53
4	5350.00	46.27 AV	54.00	-7.73	1.00 H	202	39.74	6.53
5	10620.00	53.69 PK	74.00	-20.31	1.00 H	0	39.13	14.56
6	10620.00	42.23 AV	54.00	-11.77	1.00 H	0	27.67	14.56
7	15930.00	63.26 PK	74.00	-10.74	1.00 H	360	41.46	21.80
8	15930.00	46.55 AV	54.00	-7.45	1.00 H	360	24.75	21.80
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	107.54 PK			1.00 V	256	101.16	6.38
2	*5310.00	92.04 AV			1.00 V	256	85.66	6.38
3	5350.00	70.03 PK	74.00	-3.97	1.00 V	256	63.50	6.53
4	5350.00	49.24 AV	54.00	-4.76	1.00 V	256	42.71	6.53
5	10620.00	54.83 PK	74.00	-19.17	1.00 V	360	40.27	14.56
6	10620.00	43.26 AV	54.00	-10.74	1.00 V	360	28.70	14.56
7	15930.00	64.16 PK	74.00	-9.84	1.00 V	0	42.36	21.80
8	15930.00	47.59 AV	54.00	-6.41	1.00 V	0	25.79	21.80

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.



Band 3 (5470-5725MHz):

ABOVE 1GHz DATA

802.11a

CHANNEL	TX Channel 100	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	50.34 PK	68.20	-17.86	1.00 H	198	43.38	6.96
2	*5500.00	94.32 PK			1.00 H	198	87.25	7.07
3	*5500.00	79.64 AV			1.00 H	198	72.57	7.07
4	11000.00	53.69 PK	74.00	-20.31	1.00 H	0	38.41	15.28
5	11000.00	43.21 AV	54.00	-10.79	1.00 H	0	27.93	15.28
6	#16500.00	63.78 PK	68.20	-4.42	1.00 H	360	41.07	22.71
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	51.51 PK	68.20	-16.69	1.43 V	87	44.55	6.96
2	*5500.00	102.92 PK			1.43 V	87	95.85	7.07
3	*5500.00	89.79 AV			1.43 V	87	82.72	7.07
4	11000.00	54.36 PK	74.00	-19.64	1.00 V	360	39.08	15.28
5	11000.00	43.69 AV	54.00	-10.31	1.00 V	360	28.41	15.28
6	#16500.00	64.52 PK	68.20	-3.68	1.00 V	0	41.81	22.71

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



CHANNEL	TX Channel 116	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	50.34 PK	68.20	-17.86	1.00 H	205	43.38	6.96
2	*5580.00	94.23 PK			1.00 H	205	87.19	7.04
3	*5580.00	80.13 AV			1.00 H	205	73.09	7.04
4	11160.00	53.61 PK	74.00	-20.39	1.00 H	360	38.03	15.58
5	11160.00	43.67 AV	54.00	-10.33	1.00 H	360	28.09	15.58
6	#16740.00	63.35 PK	68.20	-4.85	1.00 H	0	40.50	22.85
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	49.72 PK	68.20	-18.48	1.61 V	84	42.76	6.96
2	*5580.00	102.78 PK			1.61 V	84	95.74	7.04
3	*5580.00	89.47 AV			1.61 V	84	82.43	7.04
4	11160.00	54.68 PK	74.00	-19.32	1.00 V	0	39.10	15.58
5	11160.00	43.26 AV	54.00	-10.74	1.00 V	0	27.68	15.58
6	#16740.00	63.76 PK	68.20	-4.44	1.00 V	360	40.91	22.85

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



CHANNEL	TX Channel 140	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	97.23 PK			1.00 H	235	90.23	7.00
2	*5700.00	86.45 AV			1.00 H	235	79.45	7.00
3	#5725.00	51.48 PK	68.20	-16.72	1.00 H	235	44.49	6.99
4	11400.00	53.86 PK	74.00	-20.14	1.00 H	0	37.82	16.04
5	11400.00	43.25 AV	54.00	-10.75	1.00 H	0	27.21	16.04
6	#17100.00	64.31 PK	68.20	-3.89	1.00 H	360	41.29	23.02
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	106.90 PK			1.88 V	172	99.90	7.00
2	*5700.00	92.73 AV			1.88 V	172	85.73	7.00
3	#5725.00	55.60 PK	68.20	-12.60	1.88 V	172	48.61	6.99
4	11400.00	54.23 PK	74.00	-19.77	1.00 V	360	38.19	16.04
5	11400.00	43.67 AV	54.00	-10.33	1.00 V	360	27.63	16.04
6	#17100.00	64.59 PK	68.20	-3.61	1.00 V	0	41.57	23.02

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



802.11n (20MHz)

CHANNEL	TX Channel 100	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	59.37 PK	68.20	-8.83	1.00 H	185	52.41	6.96
2	*5500.00	99.67 PK			1.00 H	185	92.60	7.07
3	*5500.00	88.76 AV			1.00 H	185	81.69	7.07
4	11000.00	53.62 PK	74.00	-20.38	1.00 H	360	38.34	15.28
5	11000.00	43.35 AV	54.00	-10.65	1.00 H	360	28.07	15.28
6	#16500.00	63.68 PK	68.20	-4.52	1.00 H	0	40.97	22.71
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	63.31 PK	68.20	-4.89	1.59 V	214	56.35	6.96
2	*5500.00	109.85 PK			1.59 V	214	102.78	7.07
3	*5500.00	96.54 AV			1.59 V	214	89.47	7.07
4	11000.00	54.75 PK	74.00	-19.25	1.00 V	0	39.47	15.28
5	11000.00	43.69 AV	54.00	-10.31	1.00 V	0	28.41	15.28
6	#16500.00	63.37 PK	68.20	-4.83	1.00 V	360	40.66	22.71

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



CHANNEL	TX Channel 116	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	47.68 PK	68.20	-20.52	1.00 H	243	40.72	6.96
2	*5580.00	100.23 PK			1.00 H	243	93.19	7.04
3	*5580.00	87.49 AV			1.00 H	243	80.45	7.04
4	11160.00	54.08 PK	74.00	-19.92	1.00 H	360	38.50	15.58
5	11160.00	43.16 AV	54.00	-10.84	1.00 H	360	27.58	15.58
6	#16740.00	63.74 PK	68.20	-4.46	1.00 H	0	40.89	22.85
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	50.71 PK	68.20	-17.49	1.41 V	316	43.75	6.96
2	*5580.00	109.58 PK			1.41 V	316	102.54	7.04
3	*5580.00	96.23 AV			1.41 V	316	89.19	7.04
4	11160.00	54.78 PK	74.00	-19.22	1.00 V	0	39.20	15.58
5	11160.00	43.92 AV	54.00	-10.08	1.00 V	0	28.34	15.58
6	#16740.00	63.68 PK	68.20	-4.52	1.00 V	360	40.83	22.85

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



CHANNEL	TX Channel 140	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	99.73 PK			1.00 H	214	92.73	7.00
2	*5700.00	88.64 AV			1.00 H	214	81.64	7.00
3	#5725.00	61.73 PK	68.20	-6.47	1.00 H	214	54.74	6.99
4	11400.00	53.66 PK	74.00	-20.34	1.00 H	360	37.62	16.04
5	11400.00	43.55 AV	54.00	-10.45	1.00 H	360	27.51	16.04
6	#17100.00	63.71 PK	68.20	-4.49	1.00 H	0	40.69	23.02
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	108.75 PK			1.42 V	173	101.75	7.00
2	*5700.00	95.37 AV			1.42 V	173	88.37	7.00
3	#5725.00	65.01 PK	68.20	-3.19	1.42 V	173	58.02	6.99
4	11400.00	54.29 PK	74.00	-19.71	1.00 V	0	38.25	16.04
5	11400.00	43.87 AV	54.00	-10.13	1.00 V	0	27.83	16.04
6	#17100.00	63.61 PK	68.20	-4.59	1.00 V	360	40.59	23.02

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



802.11n (40MHz)

CHANNEL	TX Channel 102	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	61.22 PK	68.20	-6.98	1.00 H	234	54.26	6.96
2	*5510.00	97.63 PK			1.00 H	234	90.56	7.07
3	*5510.00	82.24 AV			1.00 H	234	75.17	7.07
4	11020.00	54.67 PK	74.00	-19.33	1.00 H	0	39.36	15.31
5	11020.00	43.36 AV	54.00	-10.64	1.00 H	0	28.05	15.31
6	#16530.00	63.52 PK	68.20	-4.68	1.00 H	360	40.80	22.72
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	65.64 PK	68.20	-2.56	1.76 V	179	58.68	6.96
2	*5510.00	105.81 PK			1.76 V	179	98.74	7.07
3	*5510.00	89.64 AV			1.76 V	179	82.57	7.07
4	11020.00	54.27 PK	74.00	-19.73	1.00 V	360	38.96	15.31
5	11020.00	43.35 AV	54.00	-10.65	1.00 V	360	28.04	15.31
6	#16530.00	64.42 PK	68.20	-3.78	1.00 V	0	41.70	22.72

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



CHANNEL	TX Channel 110	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	54.62 PK	68.20	-13.58	1.00 H	178	47.66	6.96
2	*5550.00	99.34 PK			1.00 H	178	92.29	7.05
3	*5550.00	82.66 AV			1.00 H	178	75.61	7.05
4	11100.00	53.64 PK	74.00	-20.36	1.00 H	360	38.18	15.46
5	11100.00	43.36 AV	54.00	-10.64	1.00 H	360	27.90	15.46
6	#16650.00	63.87 PK	68.20	-4.33	1.00 H	0	41.08	22.79
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	53.72 PK	68.20	-14.48	1.36 V	280	46.76	6.96
2	*5550.00	107.64 PK			1.36 V	280	100.59	7.05
3	*5550.00	90.91 AV			1.36 V	280	83.86	7.05
4	11100.00	54.38 PK	74.00	-19.62	1.00 V	0	38.92	15.46
5	11100.00	43.67 AV	54.00	-10.33	1.00 V	0	28.21	15.46
6	#16650.00	64.59 PK	68.20	-3.61	1.00 V	360	41.80	22.79

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



CHANNEL	TX Channel 134	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	99.35 PK			1.00 H	176	92.34	7.01
2	*5670.00	82.67 AV			1.00 H	176	75.66	7.01
3	#5725.00	59.67 PK	68.20	-8.53	1.00 H	176	52.68	6.99
4	11340.00	53.69 PK	74.00	-20.31	1.00 H	360	37.77	15.92
5	11340.00	43.49 AV	54.00	-10.51	1.00 H	360	27.57	15.92
6	#17010.00	63.28 PK	68.20	-4.92	1.00 H	0	40.28	23.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	108.06 PK			1.19 V	200	101.05	7.01
2	*5670.00	91.76 AV			1.19 V	200	84.75	7.01
3	#5725.00	62.66 PK	68.20	-5.54	1.19 V	200	55.67	6.99
4	11340.00	54.68 PK	74.00	-19.32	1.00 V	0	38.76	15.92
5	11340.00	43.26 AV	54.00	-10.74	1.00 V	0	27.34	15.92
6	#17010.00	64.68 PK	68.20	-3.52	1.00 V	360	41.68	23.00

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



Band 4 (5725-5850MHz):

ABOVE 1GHz DATA

802.11a

CHANNEL	TX Channel 149	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5719.11	51.48 PK	110.55	-59.07	1.39 H	309	44.48	7.00
2	5722.48	53.07 PK	116.45	-63.38	1.39 H	309	46.08	6.99
3	5725.00	53.68 PK	122.20	-68.52	1.39 H	309	46.69	6.99
4	*5745.00	96.53 PK			1.39 H	308	89.54	6.99
5	*5745.00	83.51 AV			1.39 H	308	76.52	6.99
6	11490.00	55.36 PK	74.00	-18.64	1.00 H	0	39.16	16.20
7	11490.00	44.69 AV	54.00	-9.31	1.00 H	0	28.49	16.20
8	#17235.00	64.67 PK	68.20	-3.53	1.00 H	360	41.61	23.06
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5719.95	56.74 PK	110.79	-54.05	1.44 V	175	49.74	7.00
2	5722.48	57.86 PK	116.45	-58.59	1.44 V	175	50.87	6.99
3	5725.00	58.93 PK	122.20	-63.27	1.44 V	175	51.94	6.99
4	*5745.00	106.08 PK			1.43 V	174	99.09	6.99
5	*5745.00	92.90 AV			1.43 V	174	85.91	6.99
6	11490.00	54.68 PK	74.00	-19.32	1.00 V	360	38.48	16.20
7	11490.00	44.27 AV	54.00	-9.73	1.00 V	360	28.07	16.20
8	#17235.00	64.56 PK	68.20	-3.64	1.00 V	0	41.50	23.06

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



CHANNEL	TX Channel 157	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5725.00	47.58 PK	122.20	-74.62	1.22 H	307	40.59	6.99
2	*5785.00	97.32 PK			1.21 H	306	90.36	6.96
3	*5785.00	84.68 AV			1.21 H	306	77.72	6.96
4	5850.00	47.54 PK	122.20	-74.66	1.22 H	307	40.60	6.94
5	#5941.71	49.44 PK	68.20	-18.76	1.22 H	307	42.53	6.91
6	11570.00	54.87 PK	74.00	-19.13	1.00 H	0	38.47	16.40
7	11570.00	43.37 AV	54.00	-10.63	1.00 H	0	26.97	16.40
8	#17355.00	63.72 PK	68.20	-4.48	1.00 H	360	40.62	23.10
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
1	5725.00	49.40 PK	122.20	-72.80	1.16 V	201	42.41	6.99
2	*5785.00	105.64 PK			1.16 V	200	98.68	6.96
3	*5785.00	92.55 AV			1.16 V	200	85.59	6.96
4	5850.00	48.75 PK	122.20	-73.45	1.16 V	201	41.81	6.94
5	5871.87	51.47 PK	106.07	-54.60	1.16 V	201	44.54	6.93
6	11570.00	54.69 PK	74.00	-19.31	1.00 V	0	38.29	16.40
7	11570.00	43.63 AV	54.00	-10.37	1.00 V	0	27.23	16.40
8	#17355.00	63.72 PK	68.20	-4.48	1.00 V	360	40.62	23.10

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



CHANNEL	TX Channel 165	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5825.00	96.48 PK			1.42 H	307	89.53	6.95
2	*5825.00	83.56 AV			1.42 H	307	76.61	6.95
3	5850.00	48.54 PK	122.20	-73.66	1.43 H	307	41.60	6.94
4	5857.57	48.83 PK	110.08	-61.25	1.43 H	307	41.89	6.94
5	5869.35	48.43 PK	106.78	-58.35	1.43 H	307	41.50	6.93
6	11650.00	54.69 PK	74.00	-19.31	1.00 H	0	38.07	16.62
7	11650.00	43.84 AV	54.00	-10.16	1.00 H	0	27.22	16.62
8	#17475.00	64.87 PK	68.20	-3.33	1.00 H	360	41.72	23.15

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5825.00	107.99 PK			1.20 V	273	101.04	6.95
2	*5825.00	94.32 AV			1.20 V	273	87.37	6.95
3	5850.00	55.64 PK	122.20	-66.56	1.20 V	273	48.70	6.94
4	5850.84	56.44 PK	120.28	-63.84	1.20 V	273	49.50	6.94
5	5853.37	54.75 PK	114.53	-59.78	1.20 V	273	47.81	6.94
6	11650.00	54.67 PK	74.00	-19.33	1.00 V	0	38.05	16.62
7	11650.00	43.27 AV	54.00	-10.73	1.00 V	0	26.65	16.62
8	#17475.00	64.75 PK	68.20	-3.45	1.00 V	360	41.60	23.15

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



802.11n (20MHz)

CHANNEL	TX Channel 149	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5720.79	65.36 PK	112.61	-47.25	1.39 H	310	58.37	6.99
2	5722.48	66.47 PK	116.45	-49.98	1.39 H	310	59.48	6.99
3	5725.00	69.80 PK	122.20	-52.40	1.39 H	310	62.81	6.99
4	*5745.00	102.66 PK			1.39 H	310	95.67	6.99
5	*5745.00	89.35 AV			1.39 H	310	82.36	6.99
6	11490.00	54.61 PK	74.00	-19.39	1.00 H	360	38.41	16.20
7	11490.00	43.59 AV	54.00	-10.41	1.00 H	360	27.39	16.20
8	#17235.00	64.23 PK	68.20	-3.97	1.00 H	0	41.17	23.06

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5721.63	73.25 PK	114.53	-41.28	1.17 V	304	66.26	6.99
2	5722.48	76.44 PK	116.45	-40.01	1.17 V	304	69.45	6.99
3	#5725.00	77.05 PK	122.20	-45.15	1.17 V	304	70.06	6.99
4	*5745.00	111.01 PK			1.17 V	304	104.02	6.99
5	*5745.00	97.33 AV			1.17 V	304	90.34	6.99
6	11490.00	54.69 PK	74.00	-19.31	1.00 V	0	38.49	16.20
7	11490.00	43.21 AV	54.00	-10.79	1.00 V	0	27.01	16.20
8	#17235.00	64.25 PK	68.20	-3.95	1.00 V	360	41.19	23.06

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



CHANNEL	TX Channel 157	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5725.00	47.59 PK	122.20	-74.61	1.22 H	308	40.60	6.99
2	*5785.00	103.26 PK			1.21 H	308	96.30	6.96
3	*5785.00	89.71 AV			1.21 H	308	82.75	6.96
4	5850.00	48.52 PK	122.20	-73.68	1.22 H	308	41.58	6.94
5	5877.76	49.49 PK	103.15	-53.66	1.22 H	308	42.56	6.93
6	11570.00	54.86 PK	74.00	-19.14	1.00 H	0	38.46	16.40
7	11570.00	43.23 AV	54.00	-10.77	1.00 H	0	26.83	16.40
8	#17355.00	64.12 PK	68.20	-4.08	1.00 H	360	41.02	23.10
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
1	5725.00	50.48 PK	122.20	-71.72	1.55 V	274	43.49	6.99
2	*5785.00	112.16 PK			1.55 V	273	105.20	6.96
3	*5785.00	98.76 AV			1.55 V	273	91.80	6.96
4	5864.30	55.01 PK	108.19	-53.18	1.55 V	274	48.07	6.94
5	#5941.71	52.63 PK	68.20	-15.57	1.55 V	274	45.72	6.91
6	11570.00	54.69 PK	74.00	-19.31	1.00 V	0	38.29	16.40
7	11570.00	44.26 AV	54.00	-9.74	1.00 V	0	27.86	16.40
8	#17355.00	64.32 PK	68.20	-3.88	1.00 V	360	41.22	23.10

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * " : Fundamental frequency.
6. " # " : The radiated frequency is out of the restricted band.



CHANNEL	TX Channel 165	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5825.00	102.27 PK			1.69 H	309	95.32	6.95
2	*5825.00	89.12 AV			1.69 H	309	82.17	6.95
3	5850.00	66.37 PK	122.20	-55.83	1.69 H	309	59.43	6.94
4	5850.84	63.35 PK	120.28	-56.93	1.69 H	309	56.41	6.94
5	5851.68	58.42 PK	118.36	-59.94	1.69 H	309	51.48	6.94
6	11650.00	54.54 PK	74.00	-19.46	1.00 H	360	37.92	16.62
7	11650.00	44.20 AV	54.00	-9.80	1.00 H	360	27.58	16.62
8	#17475.00	64.79 PK	68.20	-3.41	1.00 H	0	41.64	23.15

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5825.00	112.81 PK			1.20 V	274	105.86	6.95
2	*5825.00	99.12 AV			1.20 V	274	92.17	6.95
3	5850.00	76.46 PK	122.20	-45.74	1.20 V	274	69.52	6.94
4	5851.68	67.75 PK	118.36	-50.61	1.20 V	274	60.81	6.94
5	5854.21	64.75 PK	112.61	-47.86	1.20 V	274	57.81	6.94
6	11650.00	55.67 PK	74.00	-18.33	1.00 V	0	39.05	16.62
7	11650.00	44.85 AV	54.00	-9.15	1.00 V	0	28.23	16.62
8	#17475.00	64.30 PK	68.20	-3.90	1.00 V	360	41.15	23.15

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



802.11n (40MHz)

CHANNEL	TX Channel 151	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5711.54	68.99 PK	108.43	-39.44	1.56 H	310	61.99	7.00
2	5718.27	70.23 PK	110.32	-40.09	1.56 H	310	63.23	7.00
3	5725.00	69.80 PK	122.20	-52.40	1.56 H	310	62.81	6.99
4	*5755.00	99.38 PK			1.56 H	309	92.41	6.97
5	*5755.00	84.18 AV			1.56 H	309	77.21	6.97
6	11510.00	54.26 PK	74.00	-19.74	1.00 H	360	38.01	16.25
7	11510.00	44.66 AV	54.00	-9.34	1.00 H	360	28.41	16.25
8	#17265.00	64.71 PK	68.20	-3.49	1.00 H	0	41.63	23.08

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5710.70	79.63 PK	108.20	-28.57	1.21 V	275	72.63	7.00
2	5717.43	79.38 PK	110.08	-30.70	1.21 V	275	72.38	7.00
3	5725.00	79.41 PK	122.20	-42.79	1.21 V	275	72.42	6.99
4	*5755.00	109.33 PK			1.21 V	275	102.36	6.97
5	*5755.00	93.01 AV			1.21 V	275	86.04	6.97
6	11510.00	55.68 PK	74.00	-18.32	1.00 V	0	39.43	16.25
7	11510.00	44.72 AV	54.00	-9.28	1.00 V	0	28.47	16.25
8	#17265.00	64.54 PK	68.20	-3.66	1.00 V	360	41.46	23.08

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



CHANNEL	TX Channel 159	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5795.00	100.18 PK			1.22 H	307	93.22	6.96
2	*5795.00	84.43 AV			1.22 H	307	77.47	6.96
3	5850.00	53.77 PK	122.20	-68.43	1.21 H	308	46.83	6.94
4	5856.73	52.57 PK	110.31	-57.74	1.21 H	308	45.63	6.94
5	5865.99	52.77 PK	107.72	-54.95	1.21 H	308	45.83	6.94
6	11590.00	55.36 PK	74.00	-18.64	1.00 H	0	38.90	16.46
7	11590.00	44.85 AV	54.00	-9.15	1.00 H	0	28.39	16.46
8	#17385.00	64.57 PK	68.20	-3.63	1.00 H	360	41.46	23.11

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5795.00	108.54 PK			1.50 V	199	101.58	6.96
2	*5795.00	92.17 AV			1.50 V	199	85.21	6.96
3	5850.00	61.53 PK	122.20	-60.67	1.50 V	200	54.59	6.94
4	5862.62	61.06 PK	108.66	-47.60	1.50 V	200	54.12	6.94
5	5878.61	58.28 PK	102.52	-44.24	1.50 V	200	51.35	6.93
6	11590.00	55.83 PK	74.00	-18.17	1.00 V	0	39.37	16.46
7	11590.00	44.20 AV	54.00	-9.80	1.00 V	0	27.74	16.46
8	#17385.00	64.28 PK	68.20	-3.92	1.00 V	360	41.17	23.11

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



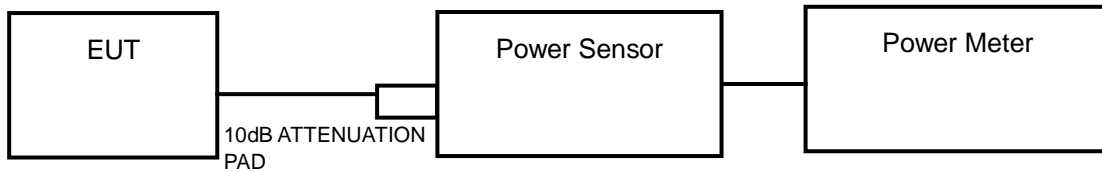
3.2 TRANSMIT POWER MEASUREMENT

3.2.1 LIMITS OF TRANSMIT POWER MEASUREMENT

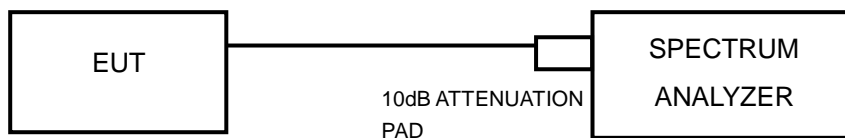
Operation Band	EUT Category		LIMIT
U-NII-1		Outdoor Access Point	1 Watt (30 dBm) (Max. e.i.r.p \leq 125mW(21 dBm) at any elevation angle above 30 degrees as measured from the horizon)
		Fixed point-to-point Access Point	1 Watt (30 dBm)
	√	Indoor Access Point	1 Watt (30 dBm)
		Mobile and Portable client device	250mW (24 dBm)
U-NII-2A	√		250mW(24dBm) or 11 dBm+10LogB*
U-NII-2C	√		250mW(24dBm) or 11 dBm+10LogB*
U-NII-3	√		1 Watt (30 dBm)

NOTE: 1. Where B is the 26dB emission bandwidth in MHz.

3.2.2 TEST SETUP



FOR 6/26dB BANDWIDTH





3.2.3 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Power Sensor	Keysight	U2021XA	MY55060016	Jun. 13,18	Jun. 12,19
Power Sensor	Keysight	U2021XA	MY55060018	Jun. 13,18	Jun. 12,19
Power Meter	Anritsu	ML2495A	1139001	Mar. 12,19	Mar. 11,20
Power Sensor	Anritsu	MA2411B	1531155	Mar. 12,19	Mar. 11,20
Digital Multimeter	FLUKE	15B	A1220010DG	Oct. 17, 18	Oct.16, 19
Humid & Temp Programmable Tester	Haida	HD-2257	110807201	Nov.15,18	Nov. 14,19
Oscilloscope	Agilent	DSO9254A	MY51260160	Nov. 09,18	Nov. 08,19
Signal Analyzer	Rohde & Schwarz	FSV7	102331	Aug. 02,18	Aug. 01,19
Signal Generator	Agilent	N5183A	MY50140980	Dec. 07,18	Dec. 06,19
Agile Signal Generator	Agilent	8645A	Agilent	Oct.27, 18	Oct.26, 19
Spectrum Analyzer	Keysight	N9020A	MY55400499	Mar. 12,19	Mar. 11,20
MXG-B RF Vector Signal Generator	Keysight	N5182B	MY56200288	Dec. 07, 18	Dec. 06, 19
Attenuator	MINI	BW-S10W2 +	S130129FGE2	N/A	N/A
DC Source	Keysight	E3642A	MY56146098	N/A	N/A

NOTES:

1. The test was performed in RF Oven room.
2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.

3.2.4 TEST PROCEDURE

FOR AVERAGE POWER MEASUREMENT

Method PM is used to perform output power measurement, trigger and gating function of wide band power meter is enabled to measure max output power of TX on burst. Duty factor is not added to measured value.

FOR 26dB BANDWIDTH

- 1) Set RBW = approximately 1% of the emission bandwidth.
- 2) Set the VBW > RBW.
- 3) Detector = RMS.
- 4) Trace mode = max hold.
- 5) Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.



FOR 6dB BANDWIDTH

- 1) Set RBW = 100 kHz.
- 2) Set the video bandwidth (VBW) ≥ 3 RBW.
- 3) Detector = Peak.
- 4) Trace mode = max hold.
- 5) Sweep = auto couple.
- 6) Allow the trace to stabilize.
- 7) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

3.2.5 DEVIATION FROM TEST STANDARD

No deviation.

3.2.6 EUT OPERATING CONDITIONS

The software provided by client to enable the EUT under transmission condition continuously at specific channel frequencies individually.



3.2.7 TEST RESULTS

OUTPUT POWER:

802.11a

Channel Number	FREQ. (MHz)	AVG. CONDUCTED POWER (dBm)	AVG. CONDUCTED POWER (mW)	LIMIT (dBm)	PASS /FAIL
36	5180	14.24	26.546	30.00	PASS
40	5200	14.38	27.416	30.00	PASS
48	5240	14.51	28.249	30.00	PASS
52	5260	13.08	20.324	24.00	PASS
60	5300	12.92	19.588	24.00	PASS
64	5320	13.19	20.845	24.00	PASS
100	5500	6.63	4.603	24.00	PASS
116	5580	8.31	6.776	24.00	PASS
140	5700	10.69	11.722	24.00	PASS
149	5745	10.19	10.447	30.00	PASS
157	5785	10.82	12.078	30.00	PASS
165	5825	11.49	14.093	30.00	PASS

For Band 2~Band 3: Limit = 11dBm+10log(26 BW)=11+10log(21.46)=24.32dBm > 24dBm



802.11n (20MHz)

Channel Number	FREQ. (MHz)	AVG. CONDUCTED POWER (dBm)	AVG. CONDUCTED POWER (mW)	LIMIT (dBm)	PASS /FAIL
36	5180	14.87	30.69	30.00	PASS
40	5200	14.77	29.992	30.00	PASS
48	5240	15.61	36.392	30.00	PASS
52	5260	15.60	36.308	24.00	PASS
60	5300	16.04	40.179	24.00	PASS
64	5320	16.05	40.272	24.00	PASS
100	5500	14.67	29.309	24.00	PASS
116	5580	16.21	41.783	24.00	PASS
140	5700	15.08	32.211	24.00	PASS
149	5745	17.06	50.816	30.00	PASS
157	5785	17.10	51.286	30.00	PASS
165	5825	17.41	55.081	30.00	PASS

For Band 2~Band 3: Limit = 11dBm+10log(26 BW)=11+10log(27.49)=25.39dBm > 24dBm



802.11n (40MHz)

Channel Number	FREQ. (MHz)	AVG. CONDUCTED POWER (dBm)	AVG. CONDUCTED POWER (mW)	LIMIT (dBm)	PASS /FAIL
38	5190	13.11	20.464	30.00	PASS
46	5230	15.15	32.734	30.00	PASS
54	5270	15.34	34.198	24.00	PASS
62	5310	12.92	19.588	24.00	PASS
102	5510	13.13	20.559	24.00	PASS
110	5550	15.68	36.983	24.00	PASS
134	5670	17.12	51.523	24.00	PASS
151	5755	16.20	41.687	24.00	PASS
159	5795	17.07	50.933	30.00	PASS



26dB BANDWIDTH:

802.11a

Channel Number	Freq. (MHz)	26dB DOWN BANDWIDTH (MHz)	PASS /FAIL
36	5180	32.43	PASS
40	5200	31.02	PASS
48	5240	33.54	PASS
52	5260	27.67	PASS
60	5300	22.47	PASS
64	5320	23.60	PASS
100	5500	21.54	PASS
116	5580	22.07	PASS
140	5700	21.46	PASS

802.11n (20MHz)

Channel Number	Freq. (MHz)	26dB DOWN BANDWIDTH (MHz)	PASS /FAIL
36	5180	29.47	PASS
40	5200	34.04	PASS
48	5240	41.22	PASS
52	5260	39.27	PASS
60	5300	41.84	PASS
64	5320	41.30	PASS
100	5500	28.30	PASS
116	5580	36.77	PASS
140	5700	27.49	PASS



802.11n (40MHz)

Channel Number	Freq. (MHz)	26dB DOWN BANDWIDTH (MHz)	PASS /FAIL
38	5190	66.19	PASS
46	5230	93.19	PASS
54	5270	89.26	PASS
62	5310	65.89	PASS
102	5510	46.10	PASS
110	5550	80.91	PASS
134	5670	80.08	PASS



6dB BANDWIDTH For 5725-5850MHz

802.11a

Channel Number	Freq. (MHz)	6dB DOWN BANDWIDTH (MHz)	PASS /FAIL
149	5745	16.38	PASS
157	5785	16.40	PASS
165	5825	16.43	PASS

802.11n (20M)

Channel Number	Freq. (MHz)	6dB DOWN BANDWIDTH (MHz)	PASS /FAIL
149	5745	17.22	PASS
157	5785	17.15	PASS
165	5825	17.57	PASS

802.11n (40M)

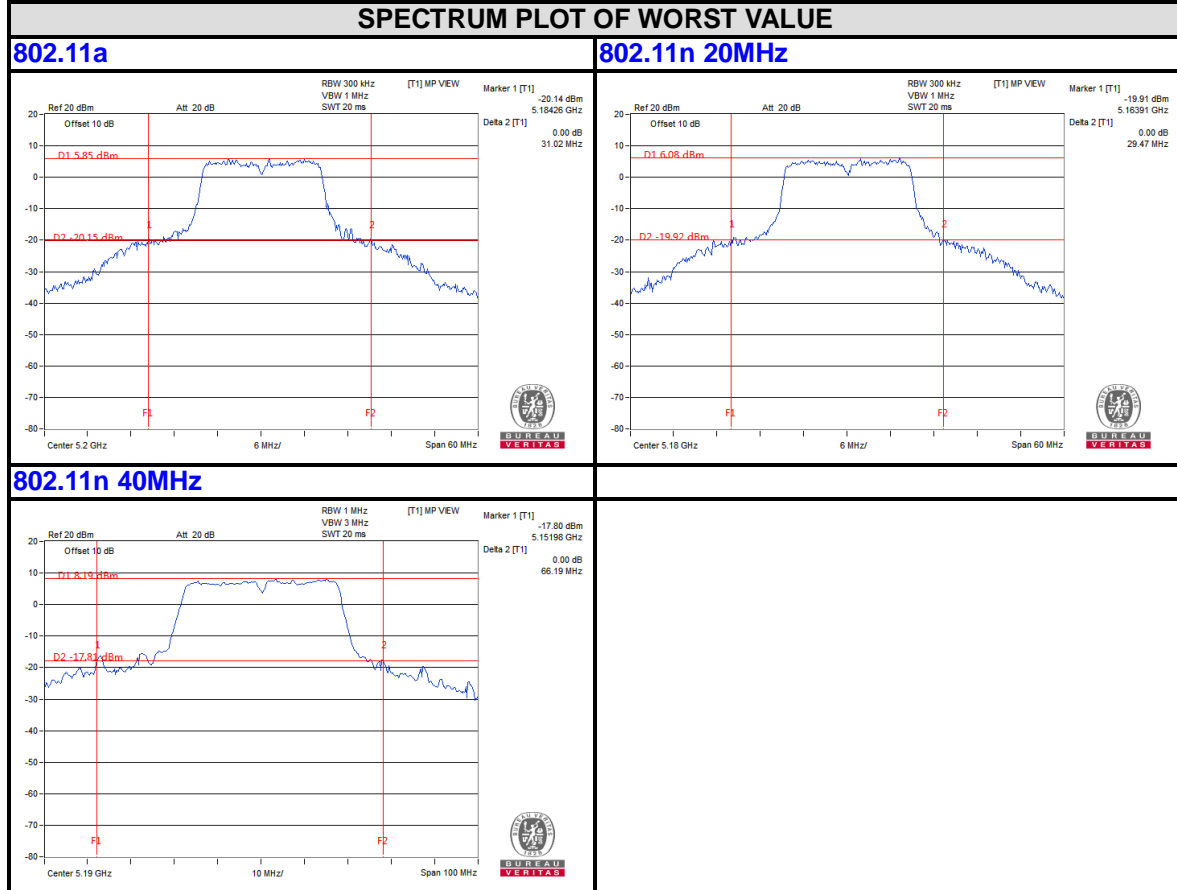
Channel Number	Freq. (MHz)	6dB DOWN BANDWIDTH (MHz)	PASS /FAIL
151	5755	35.91	PASS
159	5795	36.41	PASS



BUREAU VERITAS

Test Report No.: RF180507N048-1

26dB bandwidth Test Plot For 5150-5250MHz worst plot



Bureau Veritas Shenzhen Co., Ltd.
Dongguan Branch

No. 34, Chenwulu Section, Guantai Rd., Houjie
Town, Dongguan City,
Guangdong 523942, China

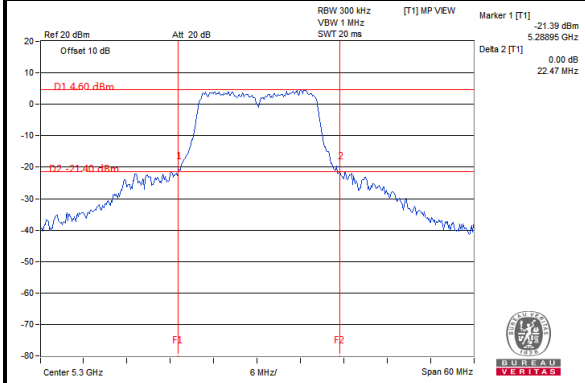
Tel: +86 769 8998 2098
Fax: +86 769 8593 1080
Email: customerservice.dg@cn.bureauveritas.com



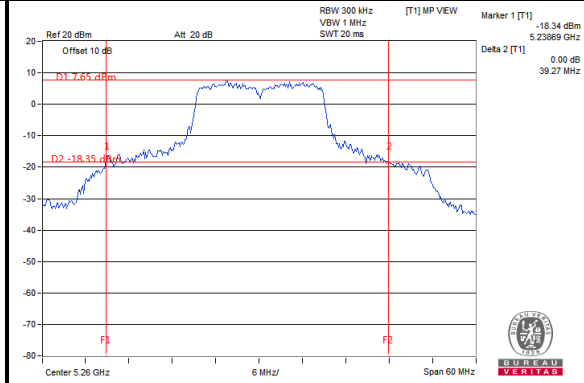
For 5250-5350MHz

SPECTRUM PLOT OF WORST VALUE

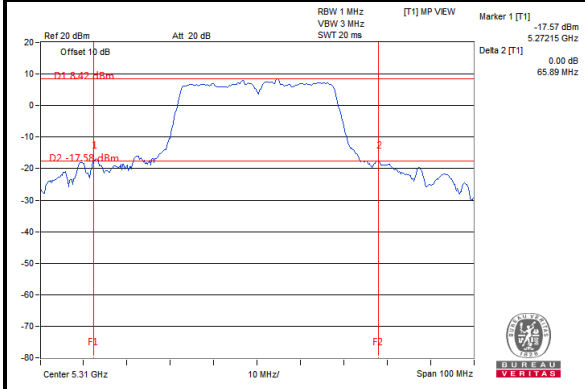
802.11a



802.11n 20MHz



802.11n 40MHz

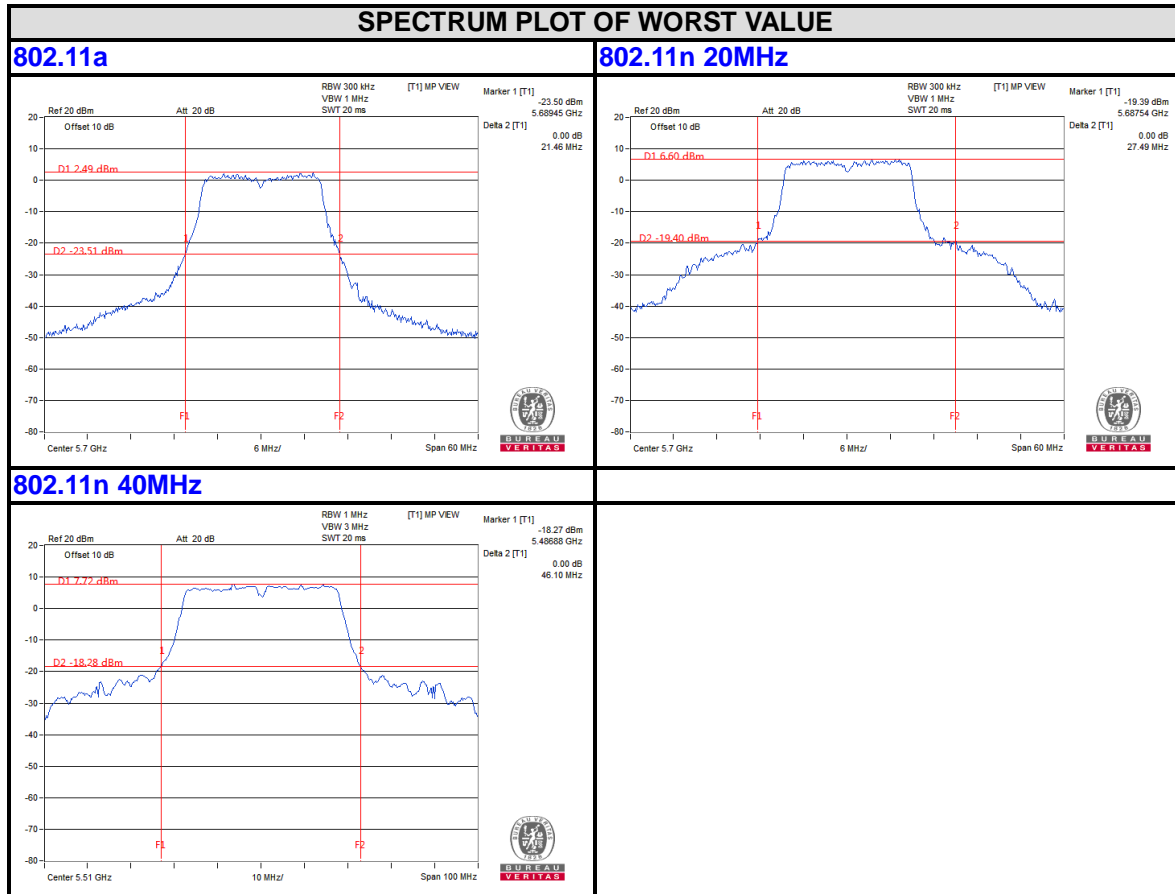




BUREAU VERITAS

Test Report No.: RF180507N048-1

For 5470-5725MHz



Bureau Veritas Shenzhen Co., Ltd.
Dongguan Branch

No. 34, Chenwulu Section, Guantai Rd., Houjie
Town, Dongguan City,
Guangdong 523942, China

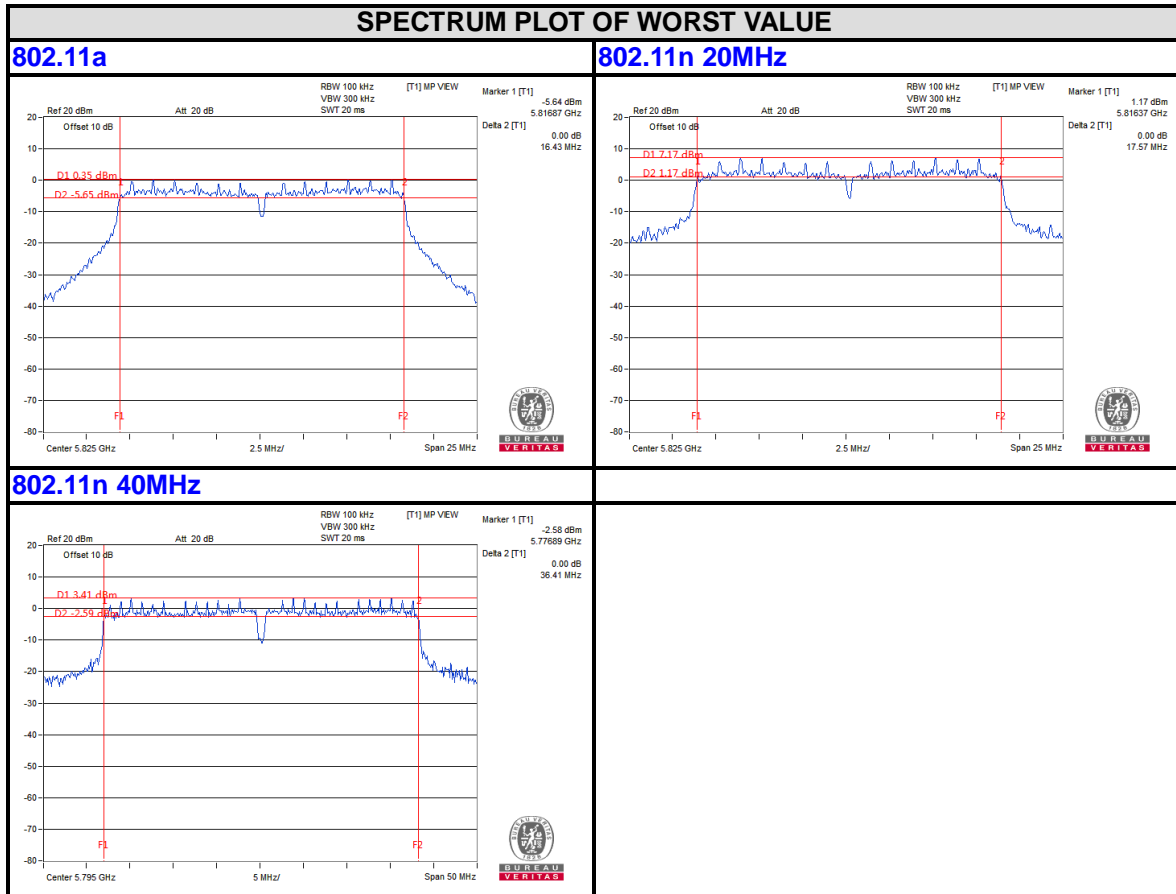
Tel: +86 769 8998 2098
Fax: +86 769 8593 1080
Email: customerservice.dg@cn.bureauveritas.com



BUREAU VERITAS

Test Report No.: RF180507N048-1

6dB BANDWIDTH For 5725-5850MHz



Bureau Veritas Shenzhen Co., Ltd.
Dongguan Branch

No. 34, Chenwulu Section, Guantai Rd., Houjie
Town, Dongguan City,
Guangdong 523942, China

Tel: +86 769 8998 2098
Fax: +86 769 8593 1080
Email: customerservice.dg@cn.bureauveritas.com

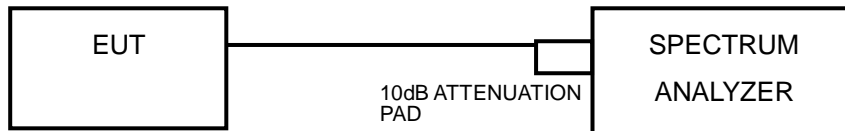


3.3 PEAK POWER SPECTRAL DENSITY MEASUREMENT

3.3.1 LIMITS OF PEAK POWER SPECTRAL DENSITY MEASUREMENT

Operation Band	EUT Category		LIMIT
U-NII-1		Outdoor Access Point	17dBm/ MHz
		Fixed point-to-point Access Point	
	√	Indoor Access Point	
		Mobile and Portable client device	
U-NII-2A	√		11dBm/ MHz
U-NII-2C	√		11dBm/ MHz
U-NII-3	√		30dBm/ 500kHz

3.3.2 TEST SETUP



3.3.3 TEST INSTRUMENTS

Refer to section 3.2.3 to get information of above instrument.

3.3.4 TEST PROCEDURES

For U-NII-1, U-NII-2A, U-NII-2C band:

Using method SA-2

- 1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
- 2) Set RBW = 1MHz, Set VBW =3 MHz, Detector = RMS
- 3) Set Channel power measure = 1MHz
- 4) Sweep time = auto, trigger set to “free run”.
- 5) Trace average at least 100 traces in power averaging mode.
- 6) Record the max value and add 10 log (1/duty cycle)



For U-NII-3 band:

Using method SA-2

- 1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
- 2) Set RBW = 300 kHz, Set VBW = 1 MHz, Detector = RMS
- 3) Set Channel power measure = 1MHz
- 4) Sweep time = auto, trigger set to "free run".
- 5) Trace average at least 100 traces in power averaging mode.
- 6) Record the max value and add 10 log (1/duty cycle)

3.3.5 DEVIATION FROM TEST STANDARD

No deviation.

3.3.6 EUT OPERATING CONDITIONS

Same as 3.3.6



3.3.7 TEST RESULTS

For U-NII-1, U-NII-2A & U-NII-2C, For U-NII-3:
802.11a

Channel Number	Frequency (MHz)	RF Power Level in 1MHz BW (dBm)	RF Power Level in 1MHz BW (mW)	Total power density		MAX. Limit (dBm)	PASS / FAIL
				mW	dBm		
36	5180	1.39	1.3772	1.3772	1.39	17.00	PASS
40	5200	1.44	1.3932	1.3932	1.44	17.00	PASS
48	5240	1.62	1.4521	1.4521	1.62	17.00	PASS
52	5260	0.42	1.1015	1.1015	0.42	11.00	PASS
60	5300	0.30	1.0715	1.0715	0.30	11.00	PASS
64	5320	0.40	1.0965	1.0965	0.40	11.00	PASS
100	5500	-5.96	0.2535	0.2535	-5.96	11.00	PASS
116	5580	-4.41	0.3622	0.3622	-4.41	11.00	PASS
140	5700	-2.06	0.6223	0.6223	-2.06	11.00	PASS

Channel Number	Frequency (MHz)	RF Power Level in 300kHz BW (dBm)	RF Power Level in 500kHz BW (dBm)	Total PSD (dBm/500kHz)	MAX. Limit (dBm/500k)	PASS / FAIL
149	5745	-10.36	-8.14	-8.14	30.00	PASS
157	5785	-9.92	-7.70	-7.70	30.00	PASS
165	5825	-9.67	-7.45	-7.45	30.00	PASS



802.11n (20MHz)

Channel Number	Frequency (MHz)	RF Power Level in 1MHz BW (dBm)	RF Power Level in 1MHz BW (mW)	Total power density		MAX. Limit (dBm)	PASS / FAIL
				mW	dBm		
36	5180	1.60	1.4454	1.4454	1.60	17.00	PASS
40	5200	1.63	1.4555	1.4555	1.63	17.00	PASS
48	5240	2.57	1.8072	1.8072	2.57	17.00	PASS
52	5260	2.52	1.7865	1.7865	2.52	11.00	PASS
60	5300	2.84	1.9231	1.9231	2.84	11.00	PASS
64	5320	3.01	1.9999	1.9999	3.01	11.00	PASS
100	5500	1.92	1.556	1.556	1.92	11.00	PASS
116	5580	2.99	1.9907	1.9907	2.99	11.00	PASS
140	5700	2.20	1.6596	1.6596	2.20	11.00	PASS

Channel Number	Frequency (MHz)	RF Power Level in 300kHz BW (dBm)	RF Power Level in 500kHz BW (dBm)	Total PSD (dBm/500kHz)	MAX. Limit (dBm/500k)	PASS / FAIL
149	5745	-4.30	-2.08	-2.08	30.00	PASS
157	5785	-5.29	-3.07	-3.07	30.00	PASS
165	5825	-3.87	-1.65	-1.65	30.00	PASS



802.11n (40MHz)

Channel Number	Frequency (MHz)	RF Power Level in 1MHz BW (dBm)	RF Power Level in 1MHz BW (mW)	Total power density		MAX. Limit (dBm)	PASS / FAIL
				mW	dBm		
38	5190	-2.78	0.5272	0.5272	-2.78	17.00	PASS
46	5230	-1.04	0.787	0.787	-1.04	17.00	PASS
54	5270	-0.69	0.8531	0.8531	-0.69	11.00	PASS
62	5310	-2.84	0.52	0.52	-2.84	11.00	PASS
102	5510	-2.92	0.5105	0.5105	-2.92	11.00	PASS
110	5550	-0.71	0.8492	0.8492	-0.71	11.00	PASS
134	5670	0.45	1.1092	1.1092	0.45	11.00	PASS

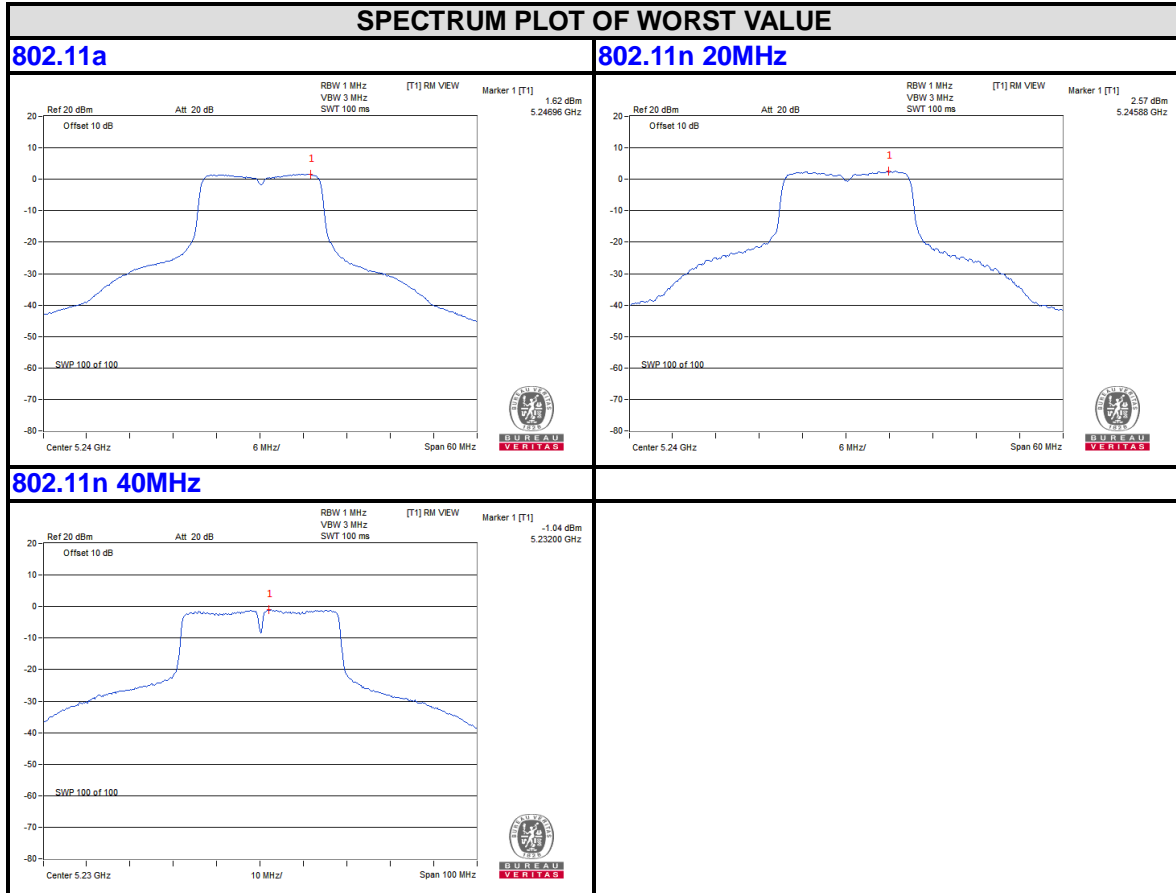
Channel Number	Frequency (MHz)	RF Power Level in 300kHz BW (dBm)	RF Power Level in 500kHz BW (dBm)	Total PSD (dBm/500kHz)	MAX. Limit (dBm/500k)	PASS / FAIL
151	5755	-8.09	-5.87	-5.87	30.00	PASS
159	5795	-7.82	-5.60	-5.60	30.00	PASS



**BUREAU
VERITAS**

Test Report No.: RF180507N048-1

PSD Test Plot
BAND 1
5150-5250MHz



Bureau Veritas Shenzhen Co., Ltd.
Dongguan Branch

No. 34, Chenwulu Section, Guantai Rd., Houjie
Town, Dongguan City,
Guangdong 523942, China

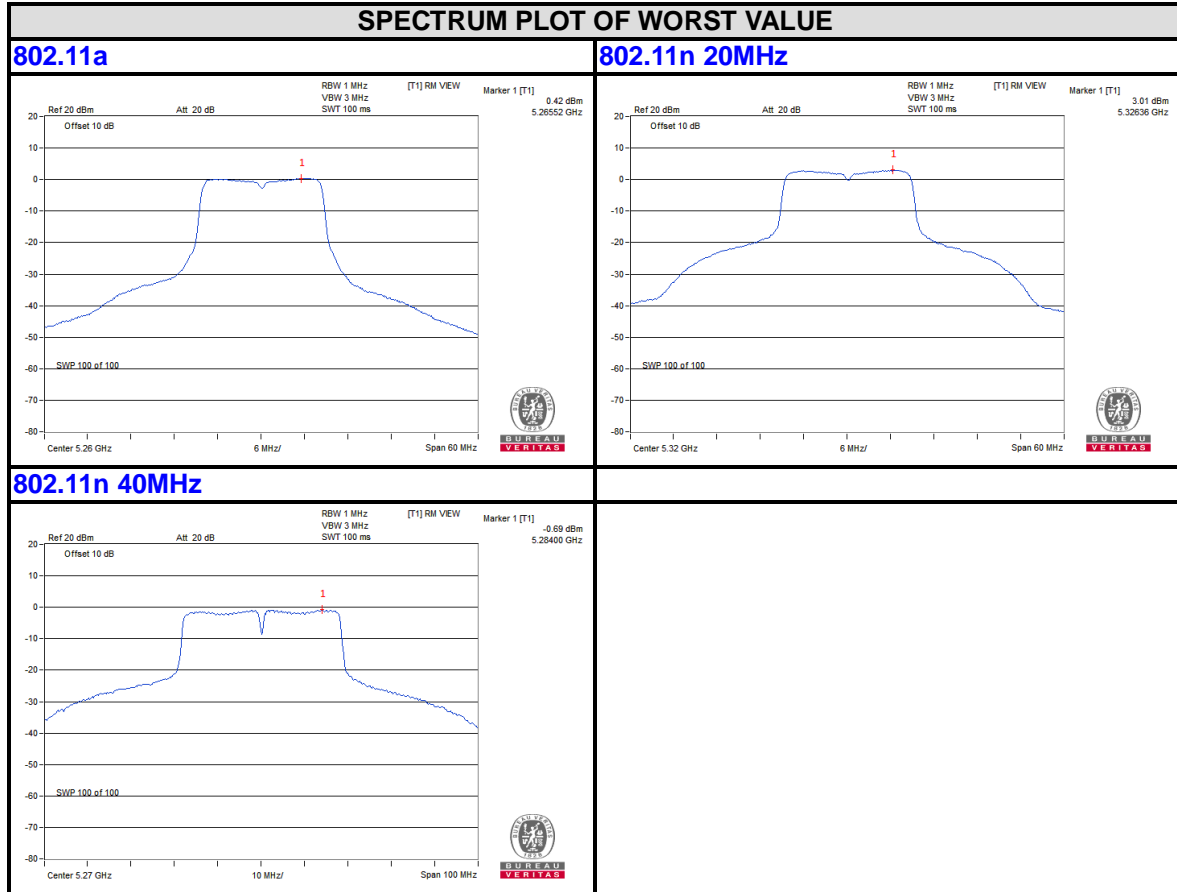
Tel: +86 769 8998 2098
Fax: +86 769 8593 1080
Email: customerservice.dg@cn.bureauveritas.com



**BUREAU
VERITAS**

Test Report No.: RF180507N048-1

BAND 2
5250-5350MHz

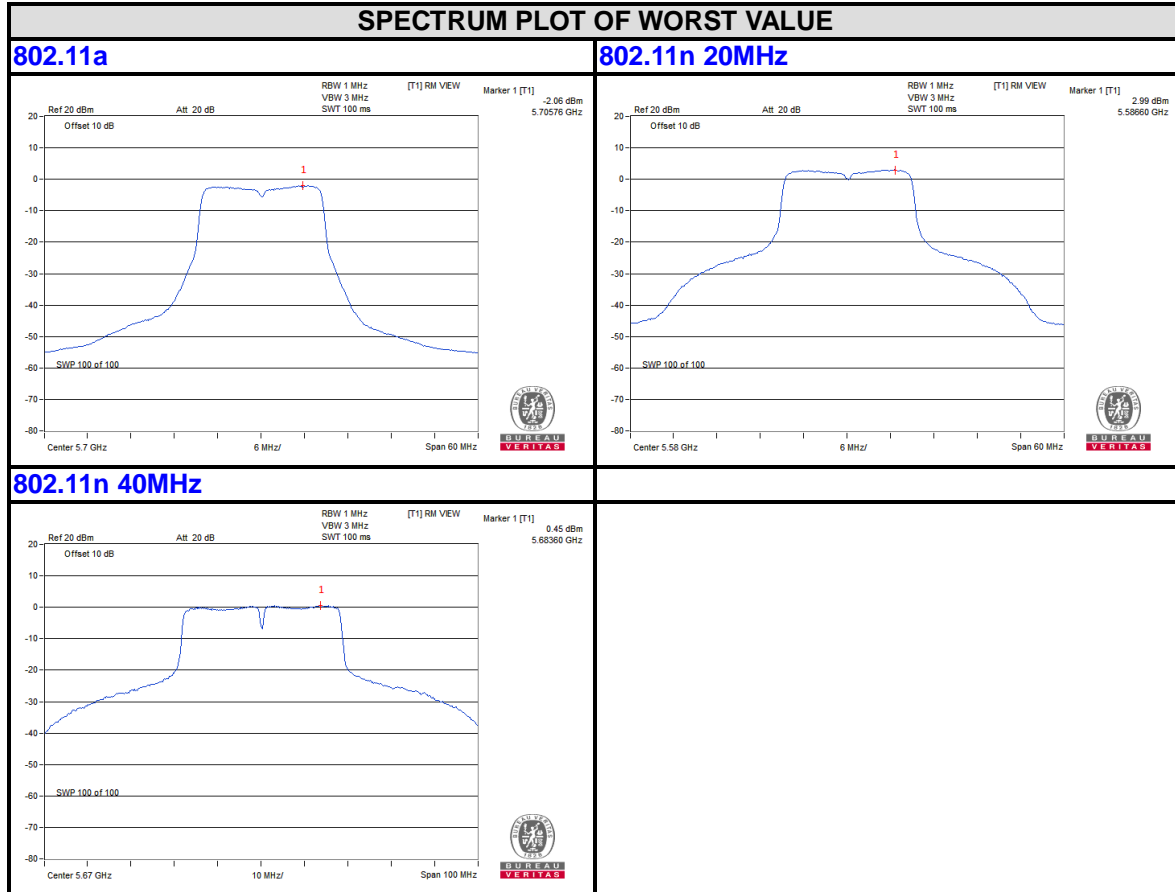




**BUREAU
VERITAS**

Test Report No.: RF180507N048-1

BAND 3
5470-5725MHz



Bureau Veritas Shenzhen Co., Ltd.
Dongguan Branch

No. 34, Chenwulu Section, Guantai Rd., Houjie
Town, Dongguan City,
Guangdong 523942, China

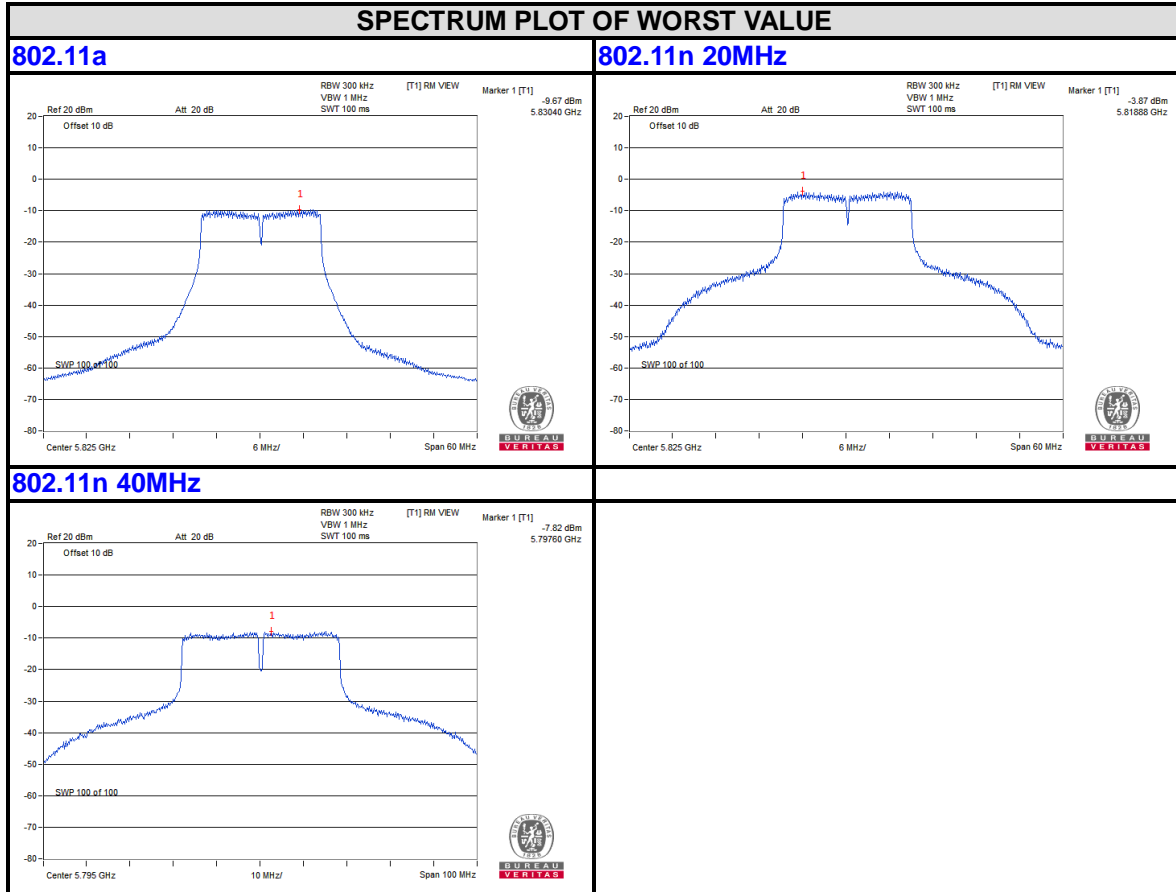
Tel: +86 769 8998 2098
Fax: +86 769 8593 1080
Email: customerservice.dg@cn.bureauveritas.com



BUREAU VERITAS

Test Report No.: RF180507N048-1

BAND4
5725-5850MHz



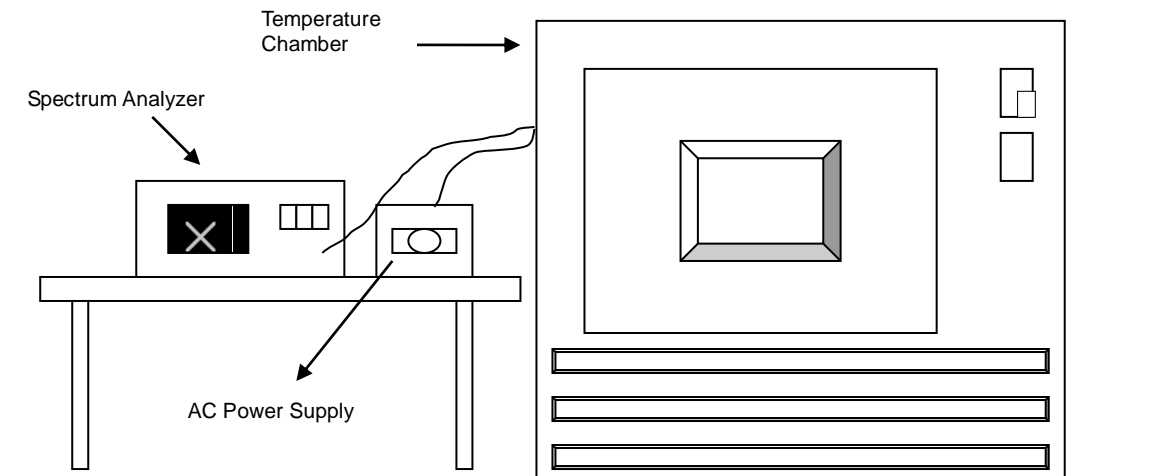


3.4 FREQUENCY STABILITY

3.4.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

The frequency of the carrier signal shall be maintained within band of operation.

3.4.2 TEST SETUP



3.4.3 TEST INSTRUMENTS

Refer to section 3.2.3 to get information of above instrument.



3.4.4 TEST PROCEDURE

- a. The EUT was placed inside the environmental test chamber and powered by nominal AC voltage.
- b. Turn the EUT on and couple its output to a spectrum analyzer.
- c. Turn the EUT off and set the chamber to the highest temperature specified.
- d. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT on and measure the operating frequency after 2, 5, and 10 minutes.
- e. Repeat step 2 and 3 with the temperature chamber set to the lowest temperature.
- f. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.

3.4.5 DEVIATION FROM TEST STANDARD

No deviation.

3.4.6 EUT OPERATING CONDITION

Set the EUT transmit at un-modulation mode to test frequency stability.



3.4.7 TEST RESULTS

FREQUENCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5180MHz									
TEMP. (°C)	POWER SUPPLY (Vdc)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift
50	3.3	5180.0116	0.00022	5180.0139	0.00027	5180.0141	0.00027	5180.0139	0.00027
40	3.3	5179.9833	-0.00032	5179.9862	-0.00027	5179.9824	-0.00034	5179.9863	-0.00026
30	3.3	5180.0034	0.00007	5180.0063	0.00012	5180.0041	0.00008	5180.0056	0.00011
20	3.3	5180.0251	0.00048	5180.0238	0.00046	5180.0218	0.00042	5180.0246	0.00047
10	3.3	5179.9728	-0.00053	5179.9762	-0.00046	5179.9762	-0.00046	5179.9725	-0.00053
0	3.3	5180.0141	0.00027	5180.0179	0.00035	5180.016	0.00031	5180.016	0.00031
-10	3.3	5180.003	0.00006	5180.0011	0.00002	5180.0029	0.00006	5180.0022	0.00004
-20	3.3	5179.9828	-0.00033	5179.9853	-0.00028	5179.9845	-0.00030	5179.9867	-0.00026
-30	3.3	5179.9809	-0.00037	5179.9811	-0.00036	5179.9784	-0.00042	5179.9783	-0.00042

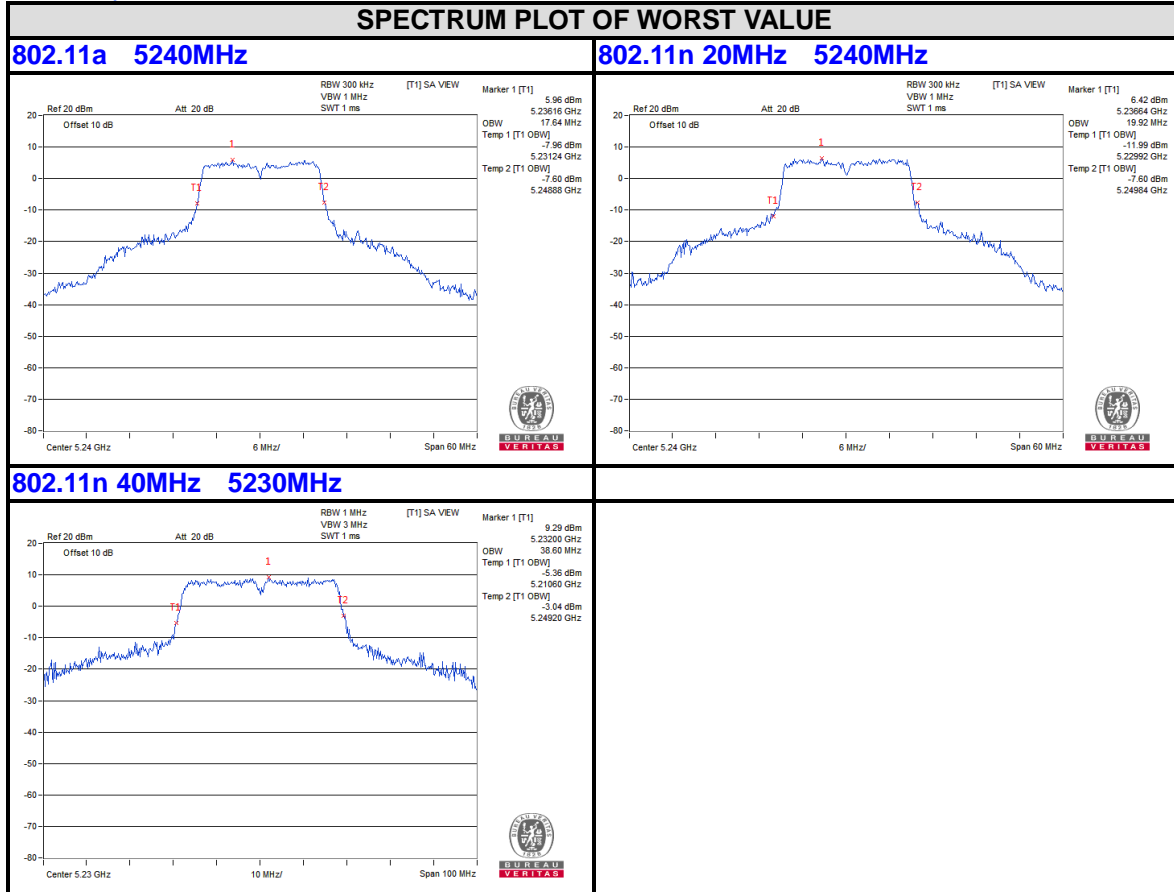
FREQUENCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5180MHz									
TEMP. (°C)	POWER SUPPLY (Vdc)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift
20	3.795	5180.0252	0.00049	5180.0232	0.00045	5180.022	0.00042	5180.0245	0.00047
	3.3	5180.0251	0.00048	5180.0238	0.00046	5180.0218	0.00042	5180.0246	0.00047
	2.805	5180.0256	0.00049	5180.0231	0.00045	5180.0208	0.00040	5180.0241	0.00047



**BUREAU
VERITAS**

Test Report No.: RF180507N048-1

Band 1
5150-5250MHz
99% Occupied Bandwidth Without over DFS Band



Bureau Veritas Shenzhen Co., Ltd.
Dongguan Branch

No. 34, Chenwulu Section, Guantai Rd., Houjie
Town, Dongguan City,
Guangdong 523942, China

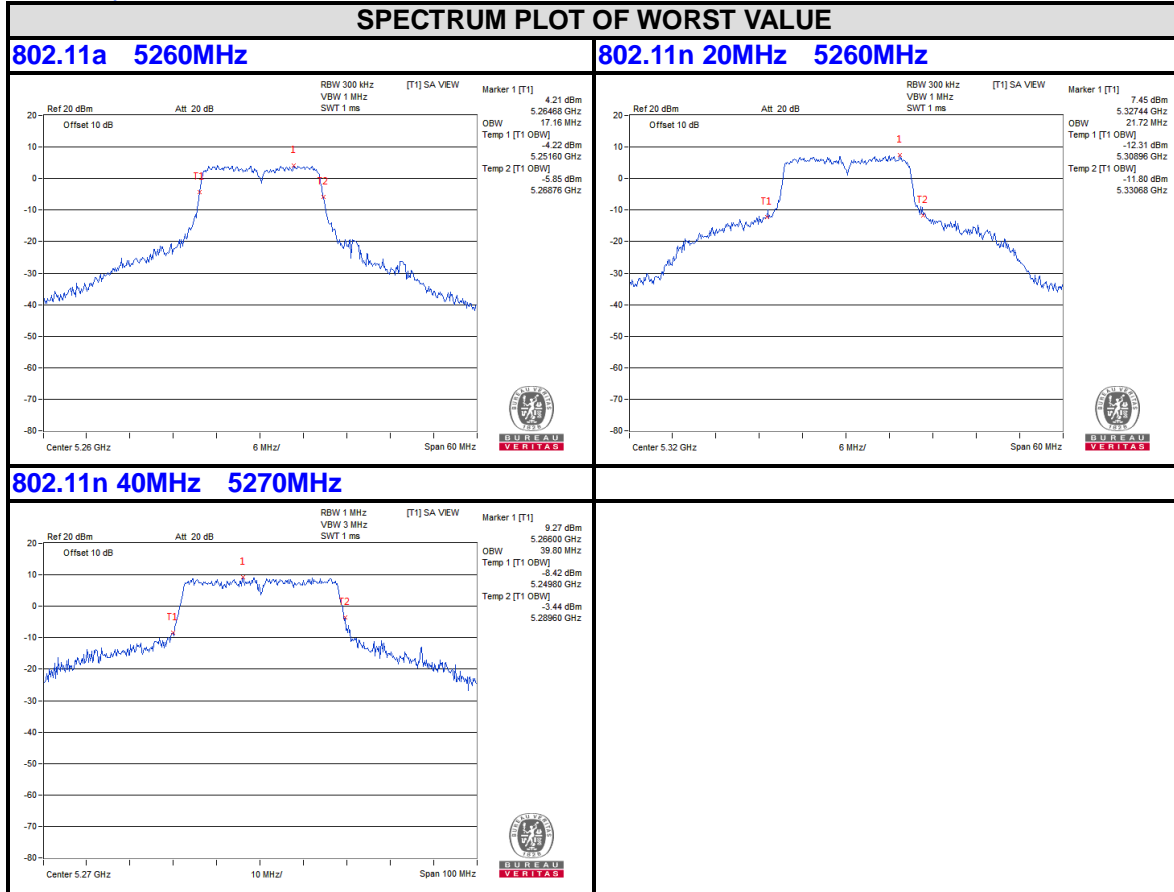
Tel: +86 769 8998 2098
Fax: +86 769 8593 1080
Email: customerservice_dg@cn.bureauveritas.com



**BUREAU
VERITAS**

Test Report No.: RF180507N048-1

Band 2
5250-5350MHz
99% Occupied Bandwidth Without over Band 1



Bureau Veritas Shenzhen Co., Ltd.
Dongguan Branch

No. 34, Chenwulu Section, Guantai Rd., Houjie
Town, Dongguan City,
Guangdong 523942, China

Tel: +86 769 8998 2098
Fax: +86 769 8593 1080
Email: customerservice.dg@cn.bureauveritas.com



**BUREAU
VERITAS**

Test Report No.: RF180507N048-1

4. PHOTOGRAPHS OF THE TEST CONFIGURATION

Please refer to the attached file (Test Setup Photo).



5. APPENDIX A – MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

No modifications were made to the EUT by the lab during the test.

---END---